



# **Aggregation of periods or salaries for unemployment benefits**

*Analysis of the economic impact of the options*

Prof Dr Jozef Pacolet and Frederic De Wispelaere  
HIVA-KU Leuven

*August 2015*



**EUROPEAN COMMISSION**

Directorate-General for Employment, Social Affairs and Inclusion  
Directorate B — Employment and Social Legislation, Social Dialogue  
Unit B.4 — Free Movement of Workers and Coordination of Social Security Schemes

*Contact:*

*E-mail:*

*European Commission  
B-1049 Brussels*

# **Aggregation of periods or salaries for unemployment benefits**

*Analysis of the economic impact of the options*

***Europe Direct is a service to help you find answers  
to your questions about the European Union.***

**Freephone number (\*):**

**00 800 6 7 8 9 10 11**

(\*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

## **LEGAL NOTICE**

This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the Internet (<http://www.europa.eu>).

© European Union, 2015  
Reproduction is authorised provided the source is acknowledged.

## Table of Contents

List of Tables .....	6
List of Figures .....	8
Preface.....	9
Introduction.....	11
1. Characteristics .....	12
2. Expenditure .....	15
3. Reference group.....	17
4. The estimated economic impact of the current rules and the alternative options.....	20
4.1. Data collection .....	20
4.2. Overview of the different options.....	21
Option 1 – Status quo .....	21
Option 2 – The formalisation of the “one-day rule” .....	21
Option 3 – A threshold for a minimum period for aggregation .....	21
Option 4 – A change of the calculation method .....	24
4.3. Estimated economic impact of the different options .....	27
Options 1 and 2 – The current rules .....	27
Option 3 – A threshold for a minimum period for aggregation .....	31
Option 4 – A change of the calculation method: salary earned in the Member State of origin is also taken into account .....	42
Summary .....	50
Conclusions .....	52
References.....	55

## LIST OF TABLES

Table 1	Types of intra-EU labour mobility, 2012-2013	10
Table 2	Unemployment benefits – Earnings taken as reference, 2014	14
Table 3	Unemployment benefits – Determination of the duration of the benefits, 2014	14
Table 4	Expenditure unemployment benefits ( <i>Full unemployment benefits</i> ), 2012	16
Table 5	Migration flows of EU-27 and EFTA movers of working age (15-64), by citizenship, 2012	18
Table 6	Number of aggregations of periods in case of unemployment, 2013	21
Table 7	Unemployment assistance, EU-28/EFTA, 2014	23
Table 8	Guaranteed minimum resources, cash benefits, 2014	24
Table 9	Unemployment benefit, impact of the earnings on the level of the UB, 2014	27
Table 10	Estimate of the annual budgetary impact under the current rules (options 1 and 2)	30
Table 11	Estimate of the annual budgetary impact under sub-option 3a	32
Table 12	Annual cost for the previous Member State responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment, average duration of unemployment, three months entitled to an unemployment benefit and maximum duration entitled to an unemployment benefit	35
Table 13	Total cost under sub-option 3a1	36
Table 14	Estimate of the budgetary annual impact under sub-option 3b	38
Table 15	Annual cost for the previous Member State responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment, average duration of unemployment, three months entitled to an unemployment benefit and maximum duration entitled to an unemployment benefit	40
Table 16	Total cost under sub-option 3b1	42
Table 17	Average earnings also taking into account the salaries earned in the Member State of origin compared to the current situation, threshold of one month	44

Table 18	Average earnings taking into account also the salaries earned in the Member State of origin compared to the current situation, threshold of three months	45
Table 19	Estimate of the budgetary annual impact under sub-option 4a	47
Table 20	Estimate of public spending for cases less than 30 days under the baseline scenario and under sub-option 4a	47
Table 21	Estimate of the budgetary annual impact under sub-option 4b	49
Table 22	Estimate of public spending for cases less than three months under the baseline scenario and under sub-option 4b	49
Table 23	A comparison of options between Member States, % change compared to the baseline scenario	50
Table 24	A comparison of options between Member States, estimated lowest and highest budgetary impact	51

## LIST OF FIGURES

Figure 1	Determination of the reference group and the budgetary impact	12
Figure 2	Unemployment benefits – Qualifying period, 2014	13
Figure 3	Minimum and maximum duration of the unemployment benefit, 2014	15
Figure 4	Full unemployment benefits – expenditure, in € per unemployed person, 2012	16
Figure 5	EU-28/EFTA movers and nationals, by labour market status, 2013	19
Figure 6	Annual gross earnings, single person without children, 67% of average wage, 2013	25



## PREFACE

In the framework of an impact assessment of a revision of Regulation (EC) Nos 883/2004 and 987/2009 by the end of 2015 the Commission requires a preparatory study on the economic impact of an amendment of the aggregation rules for unemployment. The Commission proposed several alternative options, to be compared with a first option representing the current situation, i.e. the 'status quo'.<sup>1</sup>

- **Option 1** – Status quo: "maintaining the wording of Article 61".
- **Option 2** – The formalisation of the "one-day rule".
- **Option 3** – The introduction of a minimum period for aggregating periods of insurance, employment or self-employment;
  - **Sub-option 3a: one month** of insurance, employment or self-employment needs to be completed before aggregation can be applied.
    - **Sub-option 3a1:** *Previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment.*
  - **Sub-option 3b: three months** of insurance, employment or self-employment need to be completed before aggregation can be applied.
    - **Sub-option 3b1:** *Previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment.*
- **Option 4** – A change of the calculation method of the unemployment benefit.
  - **Sub-option 4a:** the salary earned in the previous Member State is also taken into account for the calculation of the unemployment benefit by the competent Member State, if less than **one month** of insurance, employment or self-employment is completed.
  - **Sub-option 4b:** the salary earned in the previous Member State is also taken into account for the calculation of the unemployment benefit by the competent Member State, if less than **three months** of insurance, employment or self-employment is completed.

Informing the debate with reliable and recent information is essential. Information could be collected in several ways to gain insight in the current situation. This information should also be useful in order to calculate the different options. Over the past few years, the collection of national administrative data moved ahead as several questionnaires were launched within the framework of the Administrative Commission for the Coordination of Social Security Systems. In 2015, among others, a questionnaire was launched on the aggregation of unemployment benefits. These data provide already a first overview of the current situation (see Pacolet and De Wispelaere, 2015). Nonetheless, data collected outside the framework of the Administrative Commission is also highly relevant. These data available at EU level or at national level are especially useful when they are combined or confronted with administrative data of the questionnaire.

Some data sources, interesting for different reasons, which can be extracted at EU level:

- provide information on national social security systems (MISSOC, OECD);

---

<sup>1</sup> In recent years, several proposals of changes to the current rules (see, for instance, Barslund and Busse, 2014; BMI and BMAS, 2014; Tænketanken Europa, 2014) or for a 'harmonization' of the social security schemes (see, for instance, Dullien, 2014) emerged.

- provide information on intra-mobility (LFS, Eurostat migration statistics, national reports);
- compare total national expenditure with the specific cross-border expenditure (OECD, ESSPROS, Ageing Report 2012 or 2015).

Intra-EU labour mobility has different faces (*Table 1*): 'permanent' stay in another EU Member State as a result of migration; cross-border commuting and 'temporary' stay through the posting of workers. A first group are EU migrants of working age who moved to an EU Member State other than their EU Member State of birth or of their citizenship. In 2013, the 'stock' of citizens of working age (15 to 64 years) from an EU-28 Member State/EFTA country who resided in another EU-28 Member State was around 3.1% of the total population residing in the EU-28 Member States (Cannetta et al., 2014). In 2013, some 7 million EU citizens worked and lived in an EU Member State other than their own (equal to 3.3% of total employment in the EU) (European Commission, 2014a). However, in order to assess the current aggregation rules a more detailed view on the yearly flow of intra-EU migrants is needed. In 2012, some 1.8 million EU/EFTA citizens of working age migrated to another EU-28 Member State or EFTA country, of which some 700,000 EU-28/EFTA citizens returned to their Member State of citizenship. In addition, in 2013 some 1.3 million EU citizens were employed in an EU Member State other than their EU Member State of residence (i.e. 'cross-border workers'), representing 0.6% of total employment in the EU.<sup>2</sup> Some 65% (about 814 thousand) cross-border workers were employed in a neighbouring Member State (i.e. 'frontier workers')<sup>3</sup>. Finally, in 2013 some 1.34 million 'Portable Documents A1'<sup>4</sup> were issued to posted workers residing in an EU-28 Member State/EFTA country (Pacolet and De Wispelaere, 2014). The reference group to be studied within the context of this report are the new intra-EU migrants of working age.

**Table 1** Types of intra-EU labour mobility, 2012-2013

Type	Flow/Stock	Number	%	Year
<b>Total stock EU/EFTA migrants of working age*</b>	Stock		3.1% of total EU-28 population of working age	2013
<b>Flow of EU/EFTA migrants of working age*</b>	Flow	1.8 million	0.5% of total EU-28/EFTA population of working age	2012
<i>Of which 'return migration' **</i>	Flow	714,000	0.2% of total EU-28/EFTA population of working age	2012
<b>EU migrants working and living in another MS</b>	Stock	7 million	3.3% of total EU employment	2013
<b>Cross-border workers in EU-28</b>	Stock	1.3 million	0.6% of total EU employment	2013
<i>Of which 'frontier workers'</i>	Stock	814,000		2013
<b>Posted workers in EU28/EFTA***</b>	Flow	1.34 million	± 0.6% of total EU/EFTA employment	2013

\* By citizenship of the migrant.

\*\* We cannot know if someone has ever previously lived in the country of citizenship.

\*\*\* Number of forms issued.

**Source** Eurostat data on migration, Cannetta et al., 2014; Pacolet and De Wispelaere, 2014.

<sup>2</sup> Based on Labour Force Survey (LFS) data, an estimation of the number of cross-border workers can be made (based on the question 'What is the name and address of the local unit of the enterprise where you work?' and variables 'COUNTRYW' (country of place of work) and 'COUNTRY' (country of residence) in the database). However, some interpretation problems appear. While legally a distinction should be made between posted workers and cross-border workers, this distinction is not made by this question in the LFS. For that reason we think that the LFS question covers both cross-border workers (within the rules of free movement of workers) and posted workers (within the rules of free movement of services). Ideally, the LFS should make this distinction to avoid possible interpretation problems. In the further analysis we considered all workers who work in a country other than the country of residence as cross-border workers.

<sup>3</sup> This definition of a frontier worker differs from the definition used in Regulation (EC) No 883/2004.

<sup>4</sup> Portable Document A1 is a formal statement on the applicable social security legislation and proves that the posted worker pays social security contributions in another Member State.

## INTRODUCTION

The unemployment chapter of Regulation (EC) No 883/2004<sup>5</sup> provides for specific coordination rules for the aggregation of periods of insurance, employment or self-employment in case of unemployment. Aggregation will be applied to those unemployed recent migrant workers who have completed their most recent periods of insurance, employment or self-employment in the Member State where the benefit is claimed. In some cases the period of insurance, employment or self-employment is insufficient to be entitled to an unemployment benefit. In that case additional periods of insurance, employment or self-employment completed by the person in a Member State other than the competent State are required (by the use of a Portable Document U1 or a Structured Electronic Document U002).<sup>6</sup> Portable Document (PD) U1 or the corresponding Structured Electronic Document (SED) U002 certify periods of insurance, employment or self-employment completed by a worker in another Member State, which are to be taken into account for the award of unemployment benefits. PD U1 is issued to the worker, on his or her request, by the institution of the Member State where the person completed the periods of insurance, employment or self-employment. SED U002 is issued at the request of the competent institution. It should be noted that a migrant worker becomes subject to the legislation of a Member State as soon as he or she starts to work there. Hence, the aggregation rules become fully applicable as from that moment.

### Box 1 – Scope of the aggregation rules

The scope of the aggregation rules covered by PD U1 or SED U002 includes unemployed recent migrant workers, unemployed frontier workers and cross-border workers, other than frontier workers. However, the latter two groups fall outside the scope of this study.

- *Frontier workers* (i.e. people who work in a Member State other than the Member State of residence, and return home daily or at least once a week) who become wholly unemployed must apply for unemployment benefits in their Member State of residence.

- *Cross-border workers, other than frontier workers* (i.e. people who work in a Member State other than the Member State of residence, and do NOT return home daily or at least once a week), may apply for unemployment benefits and register with the employment service in either the Member State of last activity or the Member State of residence.

There is also a reimbursement mechanism between the Member State of last activity and the Member State of residence where unemployment benefits are claimed. The Member State of last activity only reimburses the State of residence the first three months of the unemployment benefits paid by the latter. This is extended to five months if the person has been insured in the Member State of last activity for at least 12 months in the preceding 24 months.

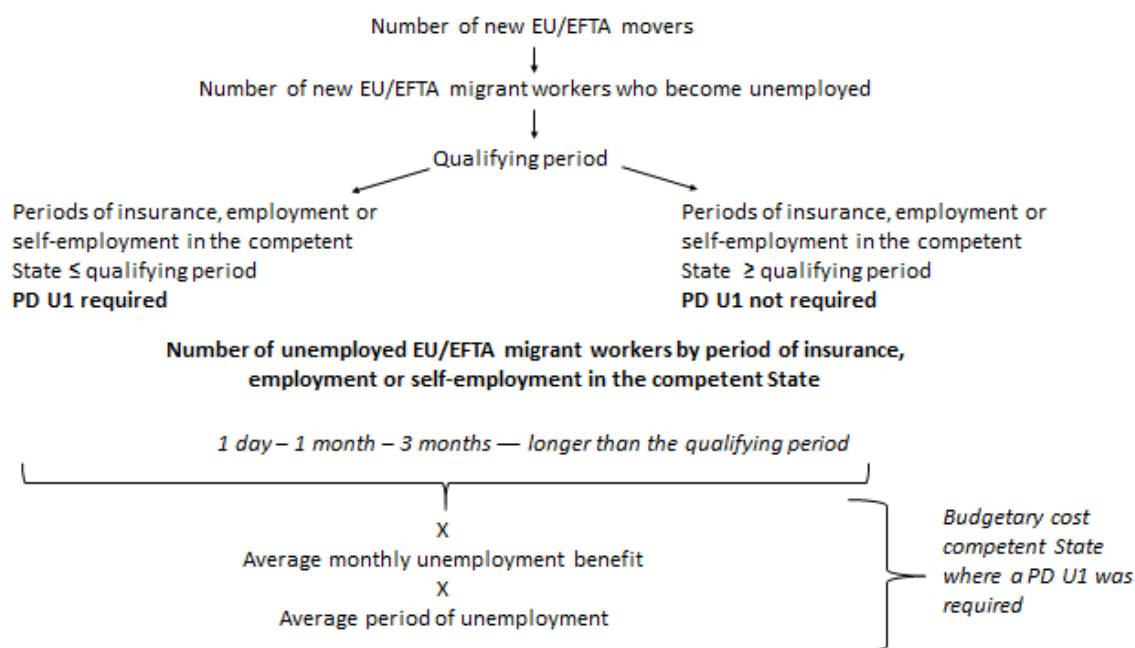
The group of unemployed frontier workers and other cross-border workers involved and the budgetary consequences on public unemployment spending may even be larger compared to the number of unemployed recent migrant workers and the corresponding expenditure.

<sup>5</sup> Chapter 6 of Regulation (EC) No 883/2004, Article 61-65.

<sup>6</sup> Article 61 of Regulation (EC) No 883/2004.

By quantifying the number of new intra-EU movers who became unemployed after only a short period of employment and the budgetary consequences, an impact assessment of the current rules but also of the several options can be made (*Figure 1*). Thus, more information on the number of new EU/EFTA movers; the number of new EU/EFTA movers who became unemployed; the period of insurance, employment or self-employment fulfilled in the Member State of last activity; the qualifying period; the average level of the unemployment benefit and the average duration of unemployment will be required.

**Figure 1** Determination of the reference group and the budgetary impact



Source The authors' own figure

## 1. CHARACTERISTICS

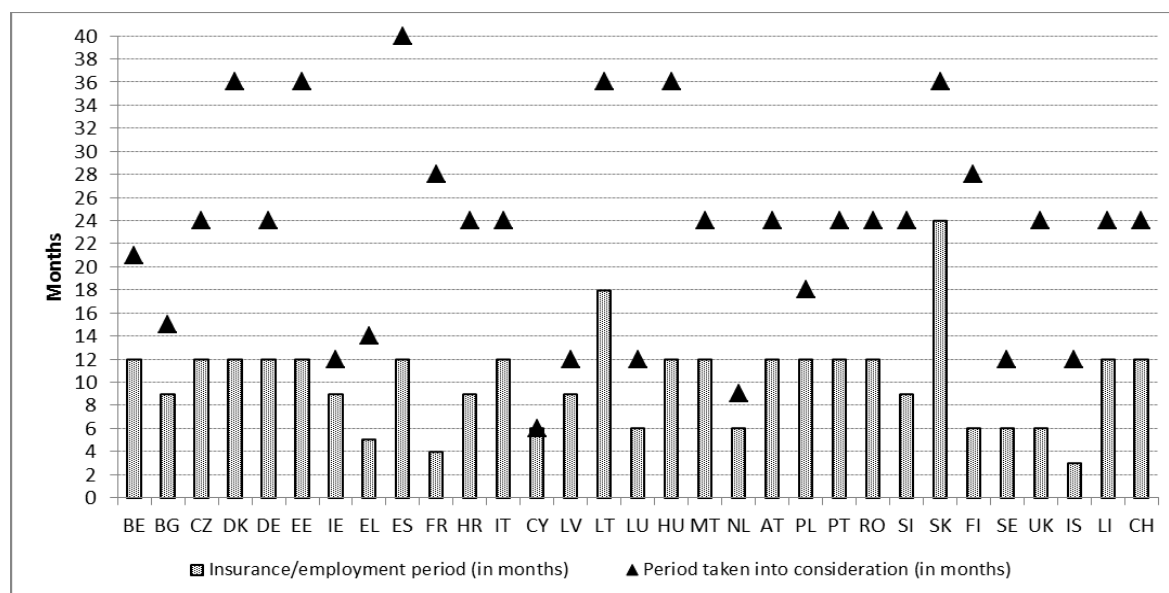
The analysis of MISSOC (2014) creates the opportunity to obtain an overview of the different dimensions of the national unemployment schemes and in particular of the qualified period, the waiting period, the level of the unemployment benefit, the duration of the unemployment benefit etc. A comparable exercise was recently provided by Esser et al (2013), commissioned by DG EMPL, based on data from the Social Policy Indicator Database (SPIN).<sup>7</sup>

The entitlement to unemployment benefits is based upon the completion of periods of insurance, employment or self-employment. The qualifying period varies across Member States, from at least four months in France to 24 months in Slovakia (*Figure 2*). Nevertheless, many Member States apply a qualifying period of some 12 months (BE, CZ, DK, DE, EE, ES, IT, HU, MT, AT, PL, PT, RO, LI and CH). However, it should be noted that there are large differences in the time in which this period must be completed. It will make the accomplishment of the acquired period more severe or less severe. Those national provisions will influence the number of PDs U1 required and the period of insurance, employment or self-employment to be completed by a

<sup>7</sup> See also EC, 2014b. The report of the European Migration Network maps national rules on social security by using the MISSOC tables.

worker in a Member State other than the competent State in order to be entitled to an unemployment benefit. This report will provide more information on the links between those elements.

**Figure 2 Unemployment benefits – Qualifying period, 2014**



Source MISSOC, 2014

In almost all Member States (excluding IE, MT, PL and UK) earnings received before unemployment will be taken into account as reference basis for the calculation of the unemployment benefit (Table 2). However, the applied calculation method varies, from taking into account the last salary earned (BE, NL and LI) to the average earnings of several months (from three months in HR, CZ, DK and LU to 36 months in LT).

These national rules do not apply to earnings acquired in another Member State. Article 62 of Regulation (EC) No 883/2004 has defined the calculation method of the unemployment benefit in case of aggregation of periods. The calculation method should only take into account the salary or professional income received by the person concerned in respect of the last activity as an employed or self-employed person. This implies that the unemployment benefit calculated on the basis of the current EU provisions might differ from the unemployment benefit if national rules would be applied (most of the Member States calculate the unemployment benefit on the basis of an average amount of earnings received during several months).<sup>8</sup>

This calculation method of the unemployment benefit has also been changed compared to 'old' Regulation (EEC) 1408/71. The second part of Article 68 of Regulation (EEC) No 1408/71 stated that "if the person concerned had been in his last employment in that territory for less than four weeks, the benefits shall be calculated on the basis of the normal wage or salary corresponding, in the place where the unemployment person is residing or staying, to an equivalent or similar employment to his/her last employment in the territory of another Member State".

<sup>8</sup> Barslund and Busse (2014, p. 21) concluded that any revision (in this case the inclusion of actual earnings during the relevant period) should also apply to workers moving from higher to lower salary countries.

**Table 2 Unemployment benefits – Earnings taken as reference, 2014**

Not based on earnings	Variation by level of earnings	Last salary earned	Average earnings of ... months						
			3	6	8	9	12	24	36
IE; MT; PL; UK	EL	BE; NL; LI	HR; CZ; DK; LU	IS; ES; CH	SI	EE	AT; CY; FR; DE; HU; LV; NO; PT; RO; SE	BG; IT; SK	LT

Source MISSOC, 2014

Another dimension which will influence the budgetary cost is the duration of the unemployment benefits (*Table 3*).<sup>9</sup> The applied method in order to determine the maximum entitlement period varies across Member States. In many Member States the period of insurance/employment/contribution also determines the duration of the payment while in other Member States a fixed duration of entitlement has been determined. Only Belgium has an unlimited benefit duration.

**Table 3 Unemployment benefits – Determination of the duration of the benefits, 2014**

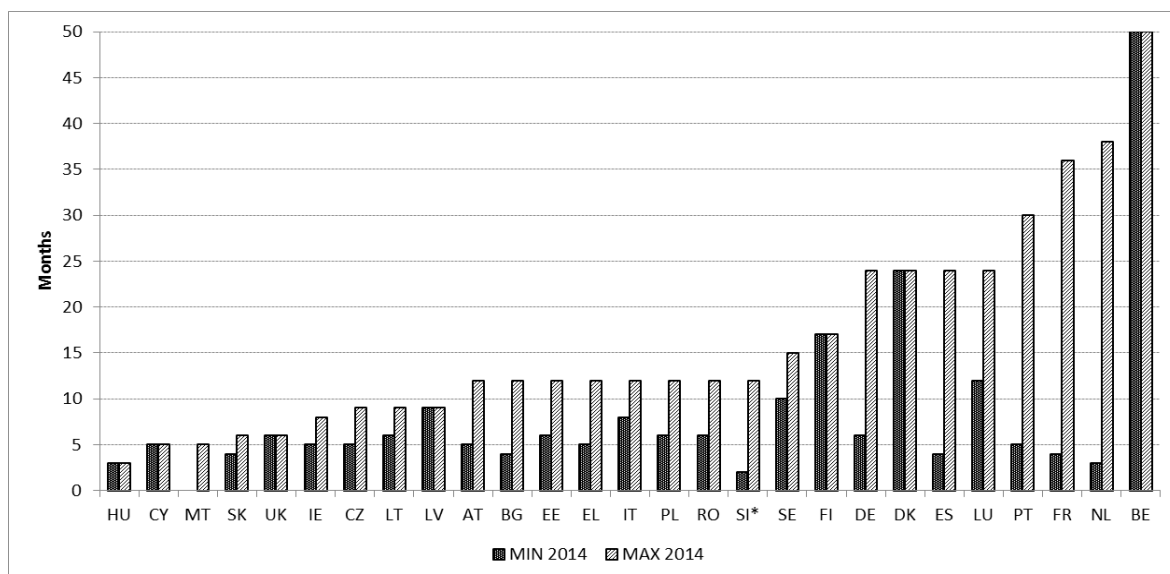
No limit	Fixed number	Unemployment rate	Insurance period	Employment (contribution) period	Insurance duration and age	Contribution duration and age	Age
BE	CY; DK; FI; IS; LV; MT; LU; NO; SK; SE; UK	PL	BG; EE; FR; HU; IE; LT	HR; EL; RO; ES; CH; NL	AT; DE; LI; SI	PT	CZ; IT

Source MISSOC, 2014

*Table 4* provides information on the minimum and maximum duration of the unemployment benefit. The entitlement to an unemployment insurance benefit will be limited to a number of weeks or months (except for BE) and varies markedly across but also within Member States.

<sup>9</sup> Based on LFS data we calculated in previous research the average duration of unemployment (average duration of 15 months). However, this average duration is measured at a certain moment which implies a possible underestimation of the duration of the unemployment (e.g. the person may still remain unemployed).

**Figure 3 Minimum and maximum duration of the unemployment benefit, 2014**



\* Belgium: unlimited

\* Note that for Slovenia the minimum duration has changed due to a new category being introduced so that coverage of least entitled actually increased.

Source EC, 2015 (chart 76) based on MISSOC 2014

## 2. EXPENDITURE

In 2012, the average EU public spending on unemployment benefits amounted to 1.0% of GDP and varied from 0.1% of GDP in Romania to 2.3% of GDP in Ireland (Table 4). Total expenditure could be divided by the total number of unemployed persons who became unemployed during the reference year.<sup>10</sup> The average annual spending per unemployment varies markedly across the EU Member States from a high amount per unemployed person in the Netherlands, Luxembourg and Norway to a very low one in Romania, Lithuania and Poland (see also Figure 4). Differences in terms of expenditure across the EU-15 Member States and the EU-13 Member States could be observed as well. These amounts will be important for the calculation of the financial impact of the several options.

The eligibility criteria and the coverage of the national unemployment schemes (discussed above and described more in detail by the MISSOC tables) will influence to a high extent the public unemployment spending.<sup>11</sup> Moreover, the access to guaranteed minimum resources (i.e. social assistance)<sup>12</sup> and the transition to it when there is no longer an entitlement to an unemployment benefit could result in a shift from contribution-financed public unemployment spending towards tax-financed public spending on social assistance.

<sup>10</sup> Note that only data is available on the number of unemployed persons at a certain time or on the average number of unemployed persons over a certain time and not on the total number of unemployed persons who were or became unemployed during the year. This implies also an overestimation of the public spending per unemployed person reported in Table 5 (based on the annual average of 2012).

<sup>11</sup> See also Darvas and Wolff (2014).

<sup>12</sup> These benefits are not part of the branches covered by Regulation (EC) No 883/2004.



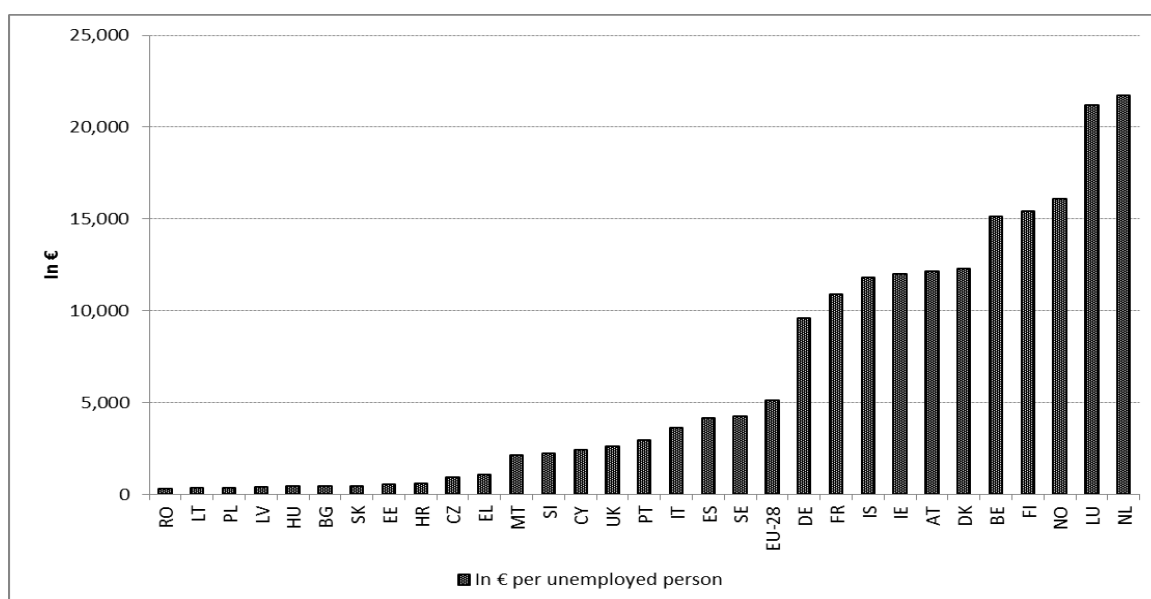
**Table 4 Expenditure unemployment benefits (Full unemployment benefits), 2012**

Member State	In million €	In percentage of GDP	In € per unemployed person	In € per inhabitant**	In purchasing power standard per inhabitant
BE	5,577	1.5	15,113	429	444
BG	181	0.5	442	18	57
CZ	341	0.2	929	24	48
DK	2,696	1.1	12,310	413	332
DE	21,363	0.8	9,606	241	264
EE	37	0.2	540	20	39
IE	3,792	2.3	11,999	828	689
EL	1,279	0.7	1,071	95	130
ES	24,146	2.3	4,155	440	547
FR	31,121	1.5	10,889	425	435
HR	180	0.4	607	34	64
IT	9,929	0.6	3,618	144	163
CY	124	0.7	2,394	121	162
LV	59	0.3	378	19	44
LT	68	0.2	345	16	39
LU	275	0.6	21,189	449	380
HU	208	0.2	439	18	38
MT	23	0.3	2,115	48	74
NL	10,183	1.7	21,712	547	546
AT	2,297	0.7	12,151	235	247
PL	640	0.2	366	14	31
PT	2,482	1.5	2,969	211	283
RO	183	0.1	291	8	19
SI	199	0.6	2,214	82	118
SK	176	0.2	465	21	50
FI	3,189	1.7	15,408	499	480
SE	1,704	0.4	4,227	149	132
UK	6,646	0.3	2,623	102	89
EU-28	129,097	1.0	5,111	227	256
IS	130	1.2	11,810	501	366
NO	1,367	0.4	16,087	223	163
CH	3,266	0.7	15,157	302	246

\* Annual average number of unemployed persons

\*\* At constant 2005 prices

Source ESSPROS [spr\_exp\_fun], [une\_nb\_a] and [lfsa\_ugan] (only for CH)

**Figure 4 Full unemployment benefits – expenditure, in € per unemployed person, 2012**


Source ESSPROS [spr\_exp\_fun] and [une\_nb\_a]



### 3. REFERENCE GROUP

The Annual report on labour mobility (Cannetta, Fries-Tersch and Mabilia, 2014), commissioned by DG EMPL, provides information on the stock and flows of EU citizens residing and/or working in another EU Member State/EFTA country. In 2013, the share of citizens of working age (15 to 64 years) from an EU-28 Member State/EFTA country who resided in another EU-28 Member State was around 3.1% of the total population of working age residing in the EU-28 Member States. However, in order to assess the impact of the aggregation rules a more detailed view on the inflow of EU migrants is required. The labour status during the first year of residence of this group of recent movers and their previous labour status in the Member State of origin will determine if periods of insurance, employment or self-employment completed in a Member State other than the competent Member State are taken into account by the unemployment scheme of the competent Member State.

Based on the 'Migration and migrant population statistics' published by Eurostat more detailed information could be obtained on the annual flow of immigrants (*Table 5*). In 2012, some 1.8 million EU-28/EFTA citizens of working age (between 15 and 64) migrated to another EU Member State/EFTA country. Some 700 thousand or 40% of the EU-28/EFTA movers have, however, the same nationality as their new Member State of residence (so-called 'return migration')<sup>13</sup>. This is especially observed for Romania, Estonia, Lithuania and Latvia (higher than 90% of the 'new' immigrants). These figures on return migration are also discussed in European Commission, 2014a.<sup>14</sup> The flow of intra-EU movers of working age represents some 0.5% of the total EU population (this percentage is equal to 0.3% of the EU population when movers with the same citizenship as their new Member State are excluded) (*Table 5*). This percentage varies across Member States, from 3.8% of the population in Luxembourg and 1.8% in Switzerland, to only 0.1% in Portugal and Estonia. This annual flow of intra-EU movers is the reference group which should be studied. Some of them will become unemployed after a 'short' period of employment and might need to prove insured periods of another Member State in order to be entitled to an unemployment benefit.

---

<sup>13</sup> However, based on these data we cannot know if someone has ever previously lived in the country of citizenship, although he or she has the same nationality.

<sup>14</sup> However, in this report of the EC (2014a) also third-country nationals are taken into account to calculate the share of 'return migration' in total immigration.

**Table 5 Migration flows of EU-27 and EFTA movers of working age (15-64), by citizenship, 2012**

Member State (MS of immigration)	EU-27 citizenship	EFTA citizenship	Total	Citizenship of reporting MS	% citizenship of reporting MS	Population	% of total population	% of total population (excl. citizenship of reporting MS)
<b>BE</b>	65,073	330	65,403	12,779	19.5%	7,283,976	0.9%	0.7%
<b>BG</b>	7,435	33	7,468	3,767	50.4%	4,966,189	0.2%	0.1%
<b>CZ</b>	16,807	47	16,854	6,082	36.1%	7,262,768	0.2%	0.1%
<b>DK</b>	32,414	1,851	34,265	14,412	42.1%	3,625,974	0.9%	0.5%
<b>DE</b>	325,216	2,102	327,318	63,291	19.3%	54,131,105	0.6%	0.5%
<b>EE</b>	1,185	2	1,187	1,131	95.3%	884,990	0.1%	0.0%
<b>IE</b>	32,352	247	32,599	13,955	42.8%	3,048,552	1.1%	0.6%
<b>EL</b>	50,511	196	50,707	31,258	61.6%	7,302,140	0.7%	0.3%
<b>ES</b>	100,800	1,605	102,405	20,970	20.5%	31,613,238	0.3%	0.3%
<b>FR</b>	157,355	3,179	160,534	85,800	53.4%	41,976,279	0.4%	0.2%
<b>HR</b>								
<b>IT</b>	108,927	349	109,276	19,236	17.6%	38,698,168	0.3%	0.2%
<b>CY</b>	10,591	0	10,591	1,203	11.4%	609,334	1.7%	1.5%
<b>LV</b>	8,720	18	8,738	8,235	94.2%	1,373,105	0.6%	0.0%
<b>LT</b>	16,293	17	16,310	15,607	95.7%	2,016,247	0.8%	0.0%
<b>LU</b>	13,484	84	13,568	733	5.4%	361,617	3.8%	3.5%
<b>HU</b>	20,694	217	20,911	12,081	57.8%	6,815,721	0.3%	0.1%
<b>MT</b>	3,424	0	3,424	1,369	40.0%	287,233	1.2%	0.7%
<b>NL</b>	72,298	501	72,799	26,469	36.4%	11,117,321	0.7%	0.4%
<b>AT</b>	50,970	486	51,456	6,305	12.3%	5,687,630	0.9%	0.8%
<b>PL</b>	132,639	198	132,837	112,419	84.6%	27,394,455	0.5%	0.1%
<b>PT</b>	9,105	4	9,109	8,030	88.2%	6,961,852	0.1%	0.0%
<b>RO</b>	137,886	27	137,913	134,992	97.9%	13,768,151	1.0%	0.0%
<b>SI</b>	3,696	12	3,708	1,834	49.5%	1,416,347	0.3%	0.1%
<b>SK</b>						3,881,088		
<b>FI</b>	13,987	101	14,088	5,565	39.5%	3,532,645	0.4%	0.2%
<b>SE</b>	35,979	2,267	38,246	14,683	38.4%	6,113,917	0.6%	0.4%
<b>UK</b>	219,947	4,968	224,915	68,247	30.3%	41,680,662	0.5%	0.4%
<b>EU</b>	1,647,788	18,841	1,666,629	690,453	41.4%	333,810,704	0.5%	0.3%
<b>IS</b>	1,644	1,565	3,209	1,537	47.9%	212,970	1.5%	0.8%
<b>LI</b>	216	230	446	121	27.1%	25,474	1.8%	1.3%
<b>NO</b>	32,176	4,884	37,060	4,006	10.8%	3,294,281	1.1%	1.0%
<b>CH</b>	77,839	18,217	96,056	17,889	18.6%	5,394,861	1.8%	1.4%
<b>EU/EFTA</b>	1,759,663	43,737	1,803,400	714,006	39.6%	342,738,290	0.5%	0.3%

\* By citizenship of the EU/EFTA migrant.

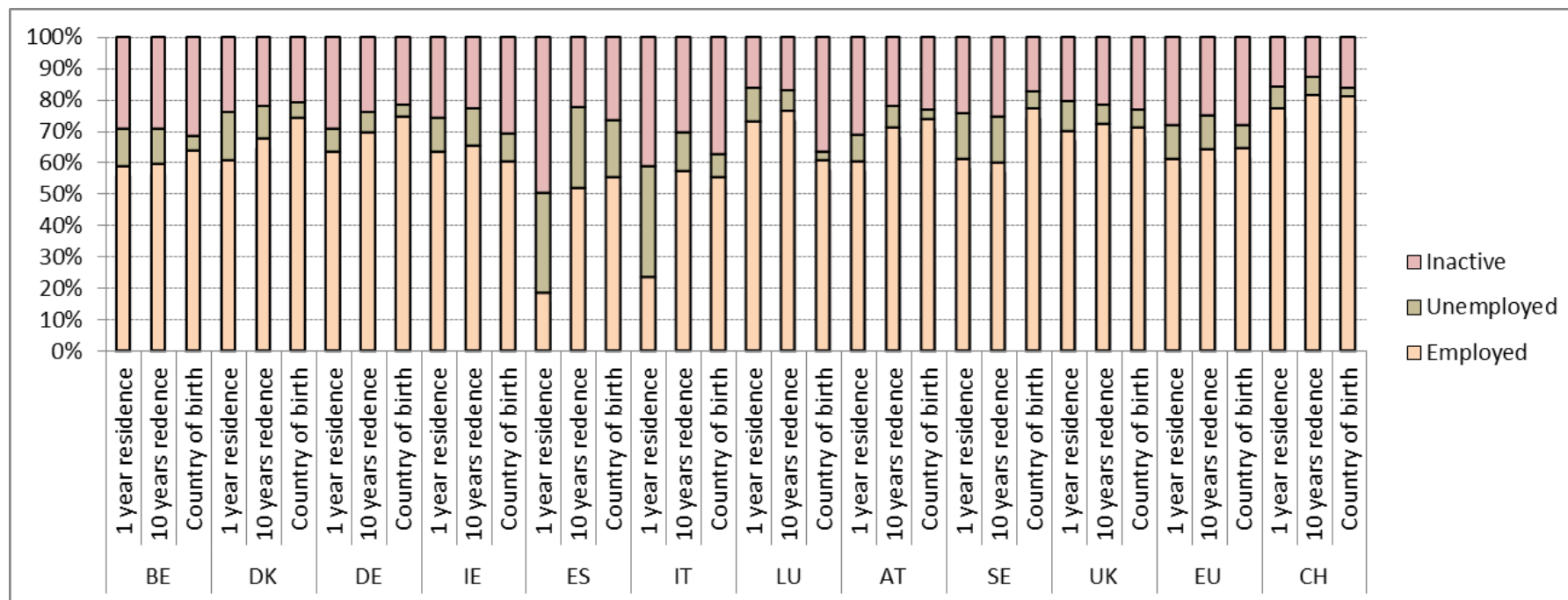
\*\* We cannot know if someone has ever previously lived in the country of citizenship.

Source Own calculation based on Eurostat data on migration by age group and citizenship [migr\_imm1ctz]

More information on the labour status (employed, unemployed or inactive) of this group of recent movers is therefore needed. This information was extracted from the Labour Force Survey (LFS). Three different categories are defined: new EU-28/EFTA movers (= < 1 year of residence),<sup>15</sup> recent EU-28/EFTA movers (= < 10 years of residence) and people who are born in the country. Note that also EU-28/EFTA movers who have the same nationality of their new Member State of residence (but not born in this country) have been taken into consideration. In general, some 11% of the new EU-28/EFTA movers are unemployed (*Figure 5*). This percentage is comparable to the unemployment rate of recent EU-28/EFTA movers but is higher compared to the unemployment rate of the nationals (7%). The unemployment rate of those three categories varies also markedly across Member States.

<sup>15</sup> However, for this first year the number of new migrants will be underestimated for most of the Member States. Based on the LFS, somewhat more than 500 thousand EU-28/EFTA citizens at working age reside less than one year in a new EU-28 Member State/EFTA country. Compared to 1.8 million EU-28/EFTA citizens based on the Eurostat Migration Statistics.

**Figure 5 EU-28/EFTA movers and nationals, by labour market status, 2013**



\* Selection of Member States above the reliability levels

Source Own calculations based on LFS

By taking into account the yearly flow of EU-28/EFTA movers (based on the 'Migration and migrant population statistics' published by Eurostat presented in *Table 5*) and the unemployment rate (based on LFS data – presented in *Figure 5*) of this group, a first estimate of the number of unemployed new EU-28/EFTA movers could be provided. This group might need to prove periods of insurance, employment or self-employment completed in a Member State other than the competent State (dependent on the qualifying period of the competent Member State and the 'short' period of employment). Confronting the 1.8 million EU-28/EFTA citizens of working age (between 15 and 64) who migrated in 2012 to another EU Member State/EFTA country with a total EU unemployment rate of 11%, some 200,000 unemployed recent movers might need a PD U1 or an SED U002 in order to acquire a right to unemployment benefits.<sup>16</sup>

## **4. THE ESTIMATED ECONOMIC IMPACT OF THE CURRENT RULES AND THE ALTERNATIVE OPTIONS**

### **4.1. Data collection**

Based on the data from the questionnaire on the aggregation of periods for unemployment the budgetary impact of the current rules and the different alternative options can be calculated. However, those data do not cover all EU-28/EFTA countries. A total of 23 Member States provided quantitative data, of which three Member States were not able to provide a breakdown by Member State of origin and two other Member States were not able to provide a breakdown by length of insurance, employment or self-employment in the Member State of last activity. The missing data for a number of large Member States, in particular EU-15 Member States, may lead to a distorted view. As a result, some caution is required when drawing conclusions. For a detailed reporting on the questionnaire on the aggregation of periods for unemployment we refer to Pacolet and De Wispelaere (2015).

These administrative data provided by the questionnaire do not cover all components of the economic impact (e.g. expenditure on social assistance) or are insufficient to calculate the options (e.g. more data is required on average earnings, the calculation method of the unemployment benefit, the qualifying period, the average level of the unemployment benefit, the duration of the unemployment benefit etc). Therefore, these administrative data will be complemented with other data available at EU-level and in particular data of MISSOC and Eurostat.

In total 24,821 cases reported by 23 Member States for 2013 concern unemployed migrant workers whose period of insurance, employment or self-employment completed in the Member State of last activity was insufficient to be entitled to an unemployment benefit (*Table 6*). This is equal to an estimated share of 0.1% of total unemployment in those Member States and to 2.1% of the annual flow of intra-EU migrants of working age to these Member States. Most aggregations of periods for unemployment were reported by France (8,338 cases or 33.6% of total), Bulgaria (4,118 cases or 16.6% of total) and Spain (2,471 cases or 10.0% of total).

---

<sup>16</sup> However, based on the LFS only 53,000 new EU-28/EFTA movers have become unemployed (selection of the respondents who migrated one year ago and became unemployed – COUNTRY1Y (not the same country (EU-28) and MAINSTAT (unemployed)). But as mentioned before, these data of the LFS underestimate the number of new migrants for most of the Member States (see previous footnote).

**Table 6** Number of aggregations of periods in case of unemployment, 2013

MS	Cases of aggregation (A)	Total annual inflow of migrants of working age (B)	% cases of aggregation (A/B)	Number of annual average unemployed persons (in ,000) (C)	% of aggregation (A/C)
BE	2,196	65,403	3.4%	417	0.5%
BG	4,118	7,468	55.1%	436	0.9%
CZ					
DK	54	34,265	0.2%	202	0.0%
DE					
EE	174	1,187	14.7%	59	0.3%
IE					
EL					
ES	2,471	102,405	2.4%	6,051	0.0%
FR	8,338	160,534	5.2%	3,010	0.3%
HR	16			318	0.0%
IT					
CY	3	10,591	0.0%	69	0.0%
LV	19	8,738	0.2%	120	0.0%
LT	225	16,310	1.4%	172	0.1%
LU	48	13,568	0.4%	15	0.3%
HU	1,149	20,911	5.5%	441	0.3%
MT	8	3,424	0.2%	12	0.1%
NL	160	72,799	0.2%	647	0.0%
AT					
PL	1,517	132,837	1.1%	1,793	0.1%
PT		9,109	0.0%	855	0.0%
RO	12	137,913	0.0%	653	0.0%
SI					
SK	1,160				
FI	135	14,088	1.0%	219	0.1%
SE	457	38,246	1.2%	411	0.1%
UK	30	224,915	0.0%	2,441	0.0%
IS					
LI	726	446	162.8%		
NO	500	37,060	1.3%	95	0.5%
CH	1,305	96,056	1.4%	2,449	0.1%
<b>Total reporting MS</b>	<b>24,821</b>	<b>1,199,164</b>	<b>2.1%</b>	<b>20,416</b>	<b>0.1%</b>

Source Questionnaire on aggregation of periods of unemployment; LFS; Eurostat data on migration and ESSPROS

## 4.2. Overview of the different options

### Option 1 – Status quo

This option will be disregarded since the wording of Article 61 of Regulation (EC) No 883/2004 does not provide sufficient clarity on the time period required before aggregation.

### Option 2 – The formalisation of the “one-day rule”

Aggregation is possible if any period of insurance, employment or self-employment has been fulfilled in the Member State of last activity. The unemployment benefit is calculated on the basis of the salary earned in the Member State of last activity.

### Option 3 – A threshold for a minimum period for aggregation

A threshold is applied for the aggregation of periods of insurance, employment or self-employment fulfilled in the Member State of last activity. A threshold of one month (sub-option 3a) or three months (sub-option 3b) could be implemented.

The application of a threshold will have some important consequences on the situation of the recent migrant worker who became unemployed and has fulfilled a period of insurance, employment or self-employment below the threshold (of one or three months). In that case, there are three possibilities: a) the person tries to find a new job as quickly as possible; b) the person returns to the Member State of origin; or c) the person asks for social assistance (or a special non-contributory benefit) (if he or she is entitled to it). As a result, this option also has to take into account public spending on social assistance. However, to what extent unemployed recent migrant workers who are not entitled to an unemployment benefit will ask for social assistance is of course unclear.

If the unemployed recent migrant worker did not fulfil a minimum period of insurance, employment or self-employment required for an unemployment benefit, this person might ask for social assistance (if he or she is entitled to it).<sup>17</sup> Therefore, the economic impact calculated for one year could also take into account the public spending on social assistance. The person involved might be entitled to an unemployment assistance scheme (*Table 7*) or to a more general assistance scheme (*Table 8*). Denmark, Estonia, Ireland, Spain, France, Austria, Portugal, Finland and the United Kingdom have defined a specific unemployment scheme. Besides, almost all Member States have defined a guaranteed minimum scheme. The monthly financial support varies from € 1,348 in Luxembourg to € 32 in Romania.

---

<sup>17</sup> The host Member State is not obliged to provide social assistance during the first three months of residence. Also, to acquire the right to reside (after three months) movers have to show that they have sufficient resources.

**Table 7 Unemployment assistance, EU-28/EFTA, 2014**

MS	Unemployment assistance scheme?	Name	Conditions or remarks
BE			
BG			
CZ			
DK	YES	<i>Midlertidig arbejdsmarkedssydelse</i>	Paid after entitlement to unemployment benefit has expired
DE			
EE	YES	<i>Töötutoetus</i>	Same as for unemployment insurance benefit, but unemployment can either be voluntary or involuntary
IE	YES		
EL			
ES	YES		To have exhausted the entitlement to contributory unemployment benefit; not to have the right to the contributory benefit because of lack of contributions, other groups (e.g. emigrant workers returning from abroad)
FR	YES	<i>Régime de solidarité</i>	To have exhausted entitlement to unemployment insurance benefits
HR			
IT			
CY			
LV			
LT			
LU			
HU			
MT			
NL			
AT	YES	<i>Notstandshilfe</i>	The unemployed person must have exhausted the right to unemployment benefits and be in a state of need
PL			
PT	YES		To have exhausted entitlement to unemployment benefits or not to have completed the qualifying period required for unemployment benefits; to fulfil the condition of resources
RO			
SI			
SK			
FI	YES	<i>Työmarkkinatuki</i>	Same as for unemployment insurance benefits and in several cases need for assistance
SE			
UK	YES	<i>Income-based Jobseekers' Allowance</i>	From 1 January 2014, claimants must also have been living in the UK for 3 months prior to the claim
IS			
LI			
NO			
CH			

Source MISSOC, 2014

**Table 8**      **Guaranteed minimum resources, cash benefits, 2014**

Member State	Monthly amount (in €)	Remark
BE	817.36	Single person
BG	24.09	Single person (73% of € 33)
CZ	124	Single
DK	1,433	Basic amount for persons of 30 years and more
DE	391	Single person
EE	90	Single person
IE	806	Single person
EL		
ES	426	€ 532.5 * 0.8 (max. amount)
FR	499.31	Single person
HR	73.20	Single person (120% of € 66.02)
IT	484.90	€ 5,818.93 / 12 months
CY	452	Head of the household
LV	128.06	Max. amount (applied by the municipalities)
LT	101	Single person
LU	1,348.18	
HU	133.20	Max. amount
MT	426.46	Single person
NL	679	Single person
AT	813.99	Single person or parent
PL	Between 4.82 and € 101	
PT	178.15	Single person
RO	32	€ 113 * 0.283
SI	265.2	Single person
SK	61.6	Single person
FI	480.2	Single person
SE	321	Single person
UK	360	Single person (weekly amount of € 90)
IS		Should not be lower than the monthly UB
LI		
NO	669	Single person
CH	1,977.4	€ 23,693 /12

Source MISSOC, 2014

Under this options unemployed persons who have not completed a period of one or three months of insurance, employment or self-employment risk falling between two stools given that they probably will not be entitled to social assistance. An alternative within option 3 is that the previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month (*option 3a*) or three months (*option 3b*) of insurance, employment or self-employment.

#### Option 4 – A change of the calculation method

Article 62 of Regulation (EC) No 883/2004 defines the calculation method of the unemployment benefit in case of aggregation of periods. The current calculation method only takes into account the salary or professional income received by the person concerned in respect of the last activity as an employed or self-employed person.

This calculation method is changed under option 4. If a period of insurance, employment or self-employment of less than one month (sub-option 4a) or three months (sub-option 4b) has been fulfilled in the Member State of last activity, the calculation of the unemployment benefit will also be based on the salaries earned in the Member State of origin.

This option implies that more detailed information is required on the unemployed recent migrant worker's Member State of origin, on the salary earned, but also on the

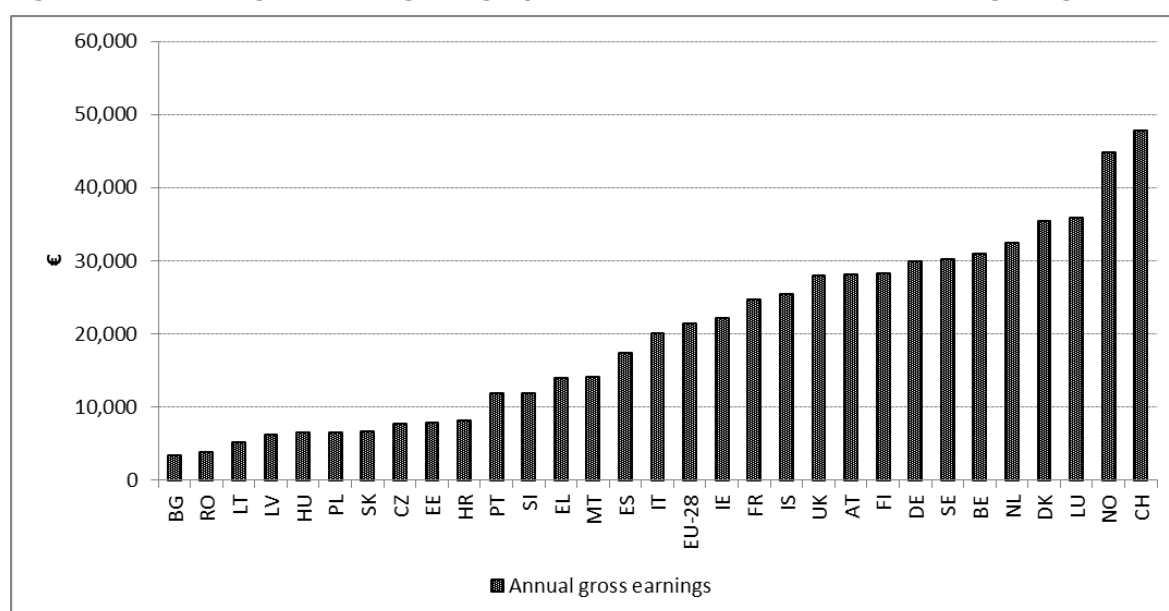


calculation method of the competent Member States (e.g. the ceiling of the earnings taken into account, minimum and maximum unemployment benefit).

For most of the cases reported by the Member States, the period of insurance, employment or self-employment of the Member State of last activity was aggregated by an additional period completed in the United Kingdom (22% of total) and Austria (18% of total) (Pacolet and De Wispelaere, 2015). The United Kingdom is the main Member State of origin for unemployed migrants who had to aggregate periods in order to be entitled to an unemployment benefit in Bulgaria, Latvia, Lithuania, Malta or Poland. New EU Member States such as Bulgaria and Romania never appear as one of the main Member States of origin of the unemployed migrants in the EU-15 who had to prove additional periods of insurance, employment or self-employment. For 76% of the cases an additional period fulfilled in an EU-15 Member State was added to the period already achieved in the Member State of last activity. This might be an indication of return migration for the EU-13 Member States. However, the missing data for a number of Member States may lead to a distorted view of reality if the numbers of cases are presented by the Member State of origin. Therefore, again some caution is required when drawing conclusions.

No information on the salary earned in the competent Member State as well as in the Member State of origin was collected via the administrative questionnaire.<sup>18</sup> Therefore, wage data published by Eurostat should be used. In 2013, the annual gross earnings (of a single person without children and earning 67% of the average wage) for the EU-28 amounted to € 21,361 (Figure 6). These annual gross earnings vary from a high amount in Switzerland (€ 47,741) and Norway (44,763) to a low amount in Bulgaria (€ 3,332) and Romania (€ 3,915).

**Figure 6 Annual gross earnings, single person without children, 67% of average wage, 2013**



Source Eurostat [earn\_nt\_net]

Despite the fact that the calculation of the unemployment benefit will be based on the salaries earned in the Member State of origin, this does not necessarily imply that changing this will result to the same extent in a change of the level of the

<sup>18</sup> The PD U1 form contains a section where more 'income details' (gross income) could be reported.

unemployment benefit. Some Member States apply a maximum ceiling of earnings to be taken into account (BE, BG, DE, ES, HR, FR, IT, CY, NL, AT, SE, LI, NO and CH) (*Table 9*). Also, a number of Member States apply a minimum and/or a maximum benefit level which flattens a strong increase or decrease in average earnings (BE, BG, CZ (max.), DK (max.), ES, HR, IT (max.), LT, LU (max.), HU (max.), AT, SI, SE and LI (max.)).

Finally, Ireland, Malta, Poland and the United Kingdom do not take previous earnings as a reference for the calculation of the unemployment benefit (*see also Table 2*), which implies that this option does not influence the unemployment benefit in these Member States.

**Table 9 Unemployment benefit, impact of the earnings on the level of the UB, 2014**

MS	Ceiling earnings taken as reference	Rate of the benefits	Lowest	Highest
BE	€ 2,266.59/month	65% of last salary	€ 36.66/day	€ 61.66/day
BG	€ 1,227/month	60% of the average daily contributory income for the last 24 months	€ 3.68/day	60% of the daily max. amount of the max. contributory of € 1,227 for 2014
CZ		65% of reference earnings		0.58 the national average wage
DK		90% of previous earnings		€ 109/day
DE	€ 5,000 /month	67% of net earnings (with children), 60% of net earnings (without children)		
EE		50% of reference earnings		
IE		€ 188/week		
EL		€ 360/month although variation with previous earnings		
ES	€ 3,597/month	70% of the calculation basis	107% of the Public Income Rate of Multiple Effects (IPREM)	175%, 200% or 225% of the IPREM
FR	4 times the social security ceiling (€12,516 per month)	40.4% reference daily wage (RDW) + € 11.72 per day or 57.4% of the RDW within the limit of 75% of the RDW.		
HR	Ceiling fixed as a percentage of the budget base.	70% of the base salary	€ 148.63/month	€ 506.35/month
IT	€ 1,192.98/month	75% of the monthly reference + supplement		€ 1,165.58 month
CY	Up to 3 times basic insurable earnings			
LV		50% of average contribution wage		
LT		€ 101 + variable component/month	No less than the State Supported Income	€ 188/month
LU		80% of previous earnings		€ 4,802.57 month
HU		60% of the average wage		€ 329/month
MT		€ 7.72 per day for a single person		
NL	Last daily wage with a max. of € 198.28	75% of the daily wage		
AT	€ 4,200/month	55% of daily net income	€ 7.43/day	€ 48.02/day
PL		80% of the basic unemployment allowance of € 200		
PT				
RO				
SI		80% of the reference basis	€ 350/month	€ 892.5/month
SK		50% of the reference earnings		
FI		Basic: € 32,66 + possible supplement of € 34.44		
SE	€ 2,033/month	80% of reference earnings		€ 74/day
UK		€ 90/week		
IS				€ 1,155/month
LI	€ 103,601/year	80% of insured earnings		
NO	6 times the basic amount (€ 63,363)	0.24% of the income basis, which normally gives a compensation level of 62.4%		
CH	€ 8,633/month	80% of the insured salary		

Source MISSOC, 2014

### 4.3. Estimated economic impact of the different options

#### Options 1 and 2 – The current rules

As mentioned before, in total 24,821 cases were reported by 23 Member States for 2013. 6,741 cases or 28% of total cases relate to a period of insurance, employment or self-employment of less than 30 days in the Member State of last activity

(Table 10). 3,341 cases or 14% of total cases apply to a period between one and three months, and finally 14,014 cases or 58% to a period of three months or longer. So, for most of the cases of aggregation, already a period of insurance, employment or self-employment of more than three months was completed by the unemployed migrant worker in the Member State of last activity. This distribution varies markedly across Member States, but also between the EU-13 and the EU-15. 8,580 cases or 62% of the cases reported by the EU-15 concerned a period of insurance, employment or self-employment of less than three months compared to only 1,295 cases or 16% of the cases reported by the EU-13. This breakdown by period of insurance, employment or self-employment will have an influence on the budgetary impact of the different options. For example, the different options will have (almost) no impact on Cyprus (100% of the cases), Hungary (97% of the cases) and Bulgaria (96% of the cases) as they have aggregated all or most of their cases on the basis of a period of insurance, employment or self-employment of more than three months.

Under the current rules all cases should be taken into consideration. These could be multiplied by the annual average expenditure per unemployed person in order to estimate the public unemployment spending (*amounts reported in Table 5 – column 3*). This yearly expenditure assumes to some extent that the unemployed person did not find a job during the first year of unemployment. While the entitlement to an unemployment insurance benefit in most of the Member States (except for BE) will be limited to a number of weeks or months. Therefore, a more 'realistic' calculation of the yearly expenditure is calculated by taking into account the annual average duration of the payment of the unemployment benefit.<sup>19</sup> The average duration of the payment of the unemployment benefit amounts to 7.5 months, but differs strongly across Member States (*Table 10 – column 6*). The average duration is multiplied by the average amount reported in *Table 5 – column 3* and results in a corrected figure reported in *Table 10 – column 7*.

The budgetary impact for Lithuania and Norway could be estimated for the baseline scenario, but not for the other options given that these Member States could not provide a breakdown by period of insurance, employment or self-employment. Also for Liechtenstein the budgetary impact is missing, since no information on the annual average expenditure per unemployed person is available.

A total estimate of annual public unemployment spending of € 100 million is obtained for the 22 reporting Member States. In absolute terms, in particular France (€ 53 million) and Belgium (€ 20.5 million) are the main spending Member States. Their expenditure is influenced by the higher number of cases and average expenditure per unemployed person compared to the other Member States (*Table 10*).

The budgetary impact of the aggregation of periods for unemployment on total unemployment spending is, however, very limited (*Table 10*). In general, 0.11% of total unemployment spending by the reporting Member States could be related to the aggregation of periods for unemployment. This percentage is similar for EU-13 Member States (0.12%) and EU-15 Member States (0.10%). Denmark, Spain, Croatia, Cyprus, Latvia, Lithuania, Poland, the Netherlands, Romania, Finland, Sweden and the United Kingdom spent less than 0.1% of their unemployment expenditure on unemployed recent migrant workers who completed an insufficient period of

---

<sup>19</sup> Calculations are based on the duration of the unemployment (which can be calculated using LFS data). If the duration of the unemployment < 1 month, we assume a payment of the unemployment benefit (UB) of 0.5 months; between 1-2 months of unemployment = 1.5 months UB paid; between 3-5 months of unemployment = 4 months UB paid; between 6 and 11 months of unemployment = 8.5 months UB paid; 12 months or longer of unemployment = 12 months UB paid. Based on LFS data we obtained an average duration of unemployment of 15 months. However, this average duration is measured at a certain moment, which implies a possible underestimation of the duration of the unemployment (e.g. the person may still remain unemployed). However, the expenditure is calculated for only one year. This explains the cut-off at 12 months. This will result in an annual average duration of payment of the unemployment of 7.5 months.

insurance, employment or self-employment to be entitled to an unemployment benefit.

# Aggregation of periods or salaries for unemployment benefits

**Table 10 Estimate of the annual budgetary impact under the current rules (options 1 and 2)**

	Number of unemployed persons who needed an aggregation of periods (A)					Average duration of the payment of the UB	Annual average expenditure per unemployed persons (in €) (B)	Expenditure related to the aggregation of periods (in €) C=A*B				Total expenditure in million € (D)	% share C/D
	Less than 30 days	1 to 3 months	3 months or more	Total for subperiods	Total			Less than 30 days	1 to 3 months	3 months or more	Total		
BE	736	420	1,040	2,196	2,196	7.4	9,319	6,859,118	3,914,171	9,692,233	20,465,522	5,577	0.37%
BG	22	150	3,946	4,118	4,118	8.7	320	7,048	48,052	1,264,077	1,319,176	181	0.73%
CZ													
DK	34	0	20	54	54	5.7	5,847	198,801	0	116,942	315,743	2,696	0.01%
DE													
EE	64	31	79	174	174	8.2	369	23,603	11,433	29,135	64,171	37	0.17%
IE													
EL													
ES	1,195	534	742	2,471	2,471	7.6	2,632	3,144,819	1,405,300	1,952,683	6,502,801	24,146	0.03%
FR	3,948	1,283	3,107	8,338	8,338	7.0	6,352	25,077,188	8,149,451	19,735,264	52,961,903	31,121	0.17%
HR	0	1	15	16	16	9.4	475	0	475	7,130	7,606	180	0.00%
IT													
CY	0	0	3	3	3	6.5	1,297	0	0	3,890	3,890	124	0.00%
LV	6	2	11	19	19	8.2	258	1,550	517	2,841	4,908	59	0.01%
LT				0	225	8.2	236	n.a.	n.a.	n.a.	53,055	68	0.08%
LU	1	7	40	48	48	6.2	10,948	10,948	76,634	437,911	525,493	275	0.19%
HU	29	6	1,114	1,149	1,149	8.0	293	8,493	1,757	326,255	336,506	208	0.16%
MT	1	1	6	8	8	7.8	1,375	1,375	1,375	8,250	11,000	23	0.05%
NL	26	27	107	160	160	6.3	11,399	296,371	307,770	1,219,680	1,823,821	10,183	0.02%
AT													
PL	164	379	974	1,517	1,517	7.4	226	36,983	85,466	219,642	342,091	640	0.05%
PT													
RO	2	2	8	12	12	7.4	180	359	359	1,438	2,157	183	0.00%
SI													
SK	217	218	725	1,160	1,160	9.8	380	82,434	82,814	275,413	440,660	176	0.25%
FI	23	50	62	135	135	4.6	5,906	135,847	295,319	366,196	797,363	3,189	0.03%
SE	156	122	179	457	457	4.8	1,691	263,777	206,287	302,667	772,731	1,704	0.05%
UK	17	1	12	30	30	6.6	1,443	24,523	1,443	17,310	43,275	6,646	0.00%
IS													
LI	96	75	555	726	726			n.a.	n.a.	n.a.	n.a.		
NO					500	4.6	6,167	n.a.	n.a.	n.a.	3,083,353	1,367	0.23%
CH	4	32	1,269	1,305	1,305	6.1	7,705	30,819	246,554	9,777,402	10,054,775	3,266	0.31%
Total	6,741	3,341	14,014	24,096	24,821			36,204,056	14,835,177	45,756,359	99,932,000	92,248	0.11%
EU-13	505	790	6,881	8,176	8,401			161,845	232,248	2,138,071	2,585,220	2,078	0.12%
EU-15	6,136	2,444	5,309	13,889	13,889			36,011,392	14,356,375	33,840,886	84,208,653	85,537	0.10%
EFTA	100	107	1,824	2,031	2,531			30,819	246,554	9,777,402	13,138,128	4,634	0.28%

\* No data available for CZ, DE, IE, EL, IT, AT, LT, PT, SI, NO and IS.

Source Own calculations based on the administrative questionnaire and ESSPROS

### **Option 3 – A threshold for a minimum period for aggregation**

A threshold is applied for the aggregation of periods of insurance, employment or self-employment fulfilled in the Member State of last activity. A threshold of one month (sub-option 3a) or three months (sub-option 3b) could be implemented.

#### *Sub-option 3a – A threshold of one month*

If a threshold of one month is applied, 6,741 cases or 28% of the total reported cases will no longer have an impact on public unemployment spending (*Table 11*). The remaining 17,355 cases are again multiplied by the annual average expenditure per unemployed person in order to estimate the public unemployment spending.

The application of this sub-option results in a total estimate of annual public unemployment spending of € 60.6 million for 20 reporting Member States. This implies a decrease of expenditure by 37% compared to the baseline scenario (excl. LT and NO).

This option will in particular have an influence on competent Member States confronted with a high percentage of aggregated cases during the first month. For example, the length of insurance, employment or self-employment of most of the cases completed in Denmark and the United Kingdom is less than one month. In contrast, Croatia and Cyprus did not report any cases below a period of one month (see also *Table 10*). The expenditure for Denmark will decrease by 63% compared to the baseline scenario. This option has no or almost no budgetary impact on Croatia (0%), Cyprus (0%), Bulgaria (-0.5%) and Switzerland (-0.3%). The expenditure of France and Belgium, two Member States which show a high expenditure in absolute terms under the baseline scenario, will decrease by 47% and 34% respectively compared to the baseline scenario (*Table 11*).

Under this option, 0.07% of total unemployment spending by the reporting Member States will be related to the aggregation of periods for unemployment (*Table 11*). However, as mentioned above, also spending on social assistance could be added to the budgetary cost.

**Table 11 Estimate of the annual budgetary impact under sub-option 3a**

	Number of unemployed persons who needed an aggregation of periods (A)			Annual average expenditure per unemployed person (in €) (B)	Expenditure related to the aggregation of periods (in €) C= A*B			% change compared to the baseline scenario	Total unemployment spending in million € (D)	% share C/D	Excluded aggregated cases
	1 to 3 months	3 months or more	Total for subperiods		1 to 3 months	3 months or more	Total				Less than 30 days
BE	420	1,040	1,460	9,319	3,914,171	9,692,233	13,606,403	-33.5%	5,577	0.24%	736
BG	150	3,946	4,096	320	48,052	1,264,077	1,312,129	-0.5%	181	0.72%	22
CZ											
DK	0	20	20	5,847	0	116,942	116,942	-63.0%	2,696	0.00%	34
DE											
EE	31	79	110	369	11,433	29,135	40,568	-36.8%	37	0.11%	64
IE											
EL											
ES	534	742	1,276	2,632	1,405,300	1,952,683	3,357,982	-48.4%	24,146	0.01%	1,195
FR	1,283	3,107	4,390	6,352	8,149,451	19,735,264	27,884,715	-47.3%	31,121	0.09%	3,948
HR	1	15	16	475	475	7,130	7,606		180	0.00%	0
IT											
CY	0	3	3	1,297	0	3,890	3,890	0.0%	124	0.00%	0
LV	2	11	13	258	517	2,841	3,358	-31.6%	59	0.01%	6
LT			n.a.				n.a.				
LU	7	40	47	10,948	76,634	437,911	514,545	-2.1%	275	0.19%	1
HU	6	1,114	1,120	293	1,757	326,255	328,012	-2.5%	208	0.16%	29
MT	1	6	7	1,375	1,375	8,250	9,625	-12.5%	23	0.04%	1
NL	27	107	134	11,399	307,770	1,219,680	1,527,450	-16.3%	10,183	0.02%	26
AT											
PL	379	974	1,353	226	85,466	219,642	305,108	-10.8%	640	0.05%	164
PT											
RO	2	8	10	180	359	1,438	1,797	-16.7%	183	0.00%	2
SI											
SK	218	725	943	380	82,814	275,413	358,226	-18.7%	176	0.20%	217
FI	50	62	112	5,906	295,319	366,196	661,516	-17.0%	3,189	0.02%	23
SE	122	179	301	1,691	206,287	302,667	508,954	-34.1%	1,704	0.03%	156
UK	1	12	13	1,443	1,443	17,310	18,753	-56.7%	6,646	0.00%	17
IS											
LI	75	555	630		n.a.	n.a.	n.a.	n.a.			96
NO			n.a.				n.a.				
CH	32	1,269	1,301	7,705	246,554	9,777,402	10,023,956	-0.3%	3,266	0.31%	4
Total	3,341	14,014	17,355		14,835,177	45,756,359	60,591,536	-37.4%**	90,614	0.07%	6,741
EU-13	790	6,881	7,671		232,248	2,138,071	2,370,319		1,810	0.13%	505
EU-15	2,444	5,309	7,753		14,356,375	33,840,886	48,197,261		85,537	0.06%	6,136
EFTA	107	1,824	1,931		246,554	9,777,402	10,023,956		3,266	0.31%	100

\* No data available for CZ, DE, IE, EL, IT, AT, LT, PT, SI, NO and IS.

\*\* Compared to the reporting Member States under the baseline scenario (excl. LT and NO).

Source Own calculations based on the administrative questionnaire and ESSPROS



*Sub-option 3a1 – A threshold of one month AND the previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment*

Under this sub-option the previous Member State (i.e. Member State of origin) will be responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment. The Member State of last activity will still be responsible for paying the unemployment benefits for those workers who have completed more than one month of insurance, employment or self-employment.

The missing data for a number of reporting Member States may lead to a distorted view of reality if the number of cases are reported by the previous Member State. As has been pointed out, most of the aggregated cases apply to a period of insurance, employment or self-employment of more than three months. It implies that the previous Member State only for a limited number of cases will be responsible for paying the unemployment benefit if a threshold of one month is applied. Moreover, only 1,534 of the 13,113 aggregated cases which could be allocated to a previous Member state of residence have to be taken into account (see also Pacolet and De Wispelaere, 2015). Most of the cases with a period of insurance, employment or self-employment of less than one month were aggregated with an additional period completed in an EU-15 Member State and mainly completed in the United Kingdom (263 cases), the Netherlands (179 cases) and France (165 cases) (*Table 12*).

The calculation of the budgetary cost for the previous Member State could be based on the average duration of unemployment (*see also Table 10*), the entitlement to an unemployment benefit up to 3 or 6 months or for the maximum duration of the entitlement (*see also Figure 3*). Please notice that the average duration of unemployment not necessarily corresponds to the duration of the entitlement to an unemployment benefit (e.g. the period of unemployment could be longer than the entitlement to an unemployment benefit). The total annual budgetary cost for the Member States of origin varies from € 3.4 Million (entitlement up to 3 months) to € 13.7 Million (maximum duration of the entitlement) for the 1,534 reported cases depending on the calculation method used (*Table 12*). The Netherlands and France will probably be confronted with the highest budgetary cost in absolute figures. However, this cost is marginal if we confront the budgetary cost of paying an unemployment benefit for those unemployed persons who, in their Member State of last activity, have not completed one months of insurance, employment or self-employment with total unemployment spending (for instance equal to 0.005% of total public spending if the average duration of unemployment is taken into account).

The additional cost to be paid as previous Member State should be added to the budgetary cost Member States will experience as Member State of last activity (*Table 13*). However, the additional cost as previous Member state will hardly influence the total cost. Only the Netherlands shows a higher cost as Member State of origin than as Member State of last activity. The real budgetary impact is, however, underestimated given that under the baseline scenario 6,741 aggregated cases of a period of insurance, employment or self-employment of less than 1 month have been taken into consideration compared to only 1,534 cases under sub-option 3a1 (*Table 12*) and even only 986 cases when selecting only the 20 reporting Member States (*Table 13*). Nevertheless, these figures show already that this option will lead to a higher budgetary impact for some Member States compared to the current rules (for instance the United Kingdom). If we extrapolate the 986 cases to the total group of 6,741 cases an estimated amount of € 32.2 Million (assuming an average expenditure

per unemployed person) or € 14,912,546 (assuming the entitlement for 3 months) will be paid by the Member States of origin (*Table 13*). It implies that the loss of an unemployment benefit in the Member State of last activity is compensated considerably by the Member State of origin (compared to an expenditure of € 36.2 Million under current rules for those 6,741 cases – see *also Table 10*).

**Table 12 Annual cost for the previous Member State responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment, average duration of unemployment, three months entitled to an unemployment benefit and maximum duration entitled to an unemployment benefit**

Previous MS	Cases less than 30 days (A)	Average duration of unemployment				Three months entitled			Six months entitled			Maximum duration of entitlement		
		Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	Total unemployment spending (in Million euro) (D)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)
BE	23	9,319	214,347	5,577	0.004%	3,778	86,898	0.002%	7,556	173,795	0.003%	15,113	347,590	0.006%
BG	6	320	1,922	181	0.001%	110	663	0.000%	221	1,326	0.001%	442	2,651	0.001%
CZ	50	588	29,407	341	0.009%	232	11,608	0.003%	464	23,216	0.007%	696	34,824	0.010%
DK	28	5,847	163,719	2,696	0.006%	3,077	86,168	0.003%	6,155	172,336	0.006%	12,310	344,671	0.013%
DE	94	5,844	549,294	21,363	0.003%	2,401	225,737	0.001%	4,803	451,475	0.002%	9,606	902,949	0.004%
EE	8	369	2,950	37	0.008%	135	1,079	0.003%	270	2,159	0.006%	540	4,318	0.012%
IE	51	9,099	464,053	3,792	0.012%	3,000	152,985	0.004%	5,999	305,969	0.008%	7,999	407,959	0.011%
EL	29	803	23,285	1,279	0.002%	268	7,762	0.001%	535	15,524	0.001%	1,071	31,047	0.002%
ES	153	2,632	402,642	24,146	0.002%	1,039	158,938	0.001%	2,078	317,875	0.001%	4,155	635,751	0.003%
FR	165	6,352	1,048,059	31,121	0.003%	2,722	449,168	0.001%	5,444	898,336	0.003%	10,889	1,796,672	0.006%
HR	2	475	951	180	0.001%	152	303	0.000%	303	607	0.000%	607	1,214	0.001%
IT	115	2,533	291,284	9,929	0.003%	905	104,030	0.001%	1,809	208,060	0.002%	3,618	416,121	0.004%
CY	9	1,297	11,669	124	0.009%	598	5,386	0.004%	1,197	10,771	0.009%	997	8,976	0.007%
LV	2	258	517	59	0.001%	95	189	0.000%	189	378	0.001%	284	567	0.001%
LT	7	236	1,651	68	0.002%	86	604	0.001%	173	1,208	0.002%	259	1,812	0.003%
LU	32	10,948	350,329	275	0.127%	5,297	169,514	0.062%	10,595	339,028	0.123%	42,378	1,356,111	0.492%
HU	12	293	3,514	208	0.002%	110	1,318	0.001%	220	2,636	0.001%	110	1,318	0.001%
MT	3	1,375	4,125	23	0.018%	529	1,587	0.007%	1,058	3,173	0.014%	881	2,644	0.011%
NL	179	11,399	2,040,400	10,183	0.020%	5,428	971,619	0.010%	10,856	1,943,238	0.019%	21,712	3,886,475	0.038%
AT	110	5,468	601,493	2,297	0.026%	3,038	334,163	0.015%	6,076	668,326	0.029%	12,151	1,336,651	0.058%
PL	20	226	4,510	640	0.001%	91	1,828	0.000%	183	3,657	0.001%	366	7,314	0.001%
PT	18	2,004	36,077	2,482	0.001%	742	13,362	0.001%	1,485	26,724	0.001%	7,423	133,620	0.005%
RO	23	180	4,134	183	0.002%	73	1,676	0.001%	146	3,352	0.002%	291	6,704	0.004%
SI	2	1,458	2,915	199	0.001%	554	1,107	0.001%	1,107	2,214	0.001%	2,214	4,428	0.002%
SK	6	380	2,279	176	0.001%	116	698	0.000%	233	1,395	0.001%	233	1,395	0.001%
FI	10	5,906	59,064	3,189	0.002%	3,852	38,520	0.001%	7,704	77,040	0.002%	15,408	154,080	0.005%
SE	18	1,691	30,436	1,704	0.002%	1,057	19,022	0.001%	2,114	38,045	0.002%	4,227	76,090	0.004%
UK	263	1,443	379,380	6,646	0.006%	656	172,445	0.003%	1,311	344,891	0.005%	1,311	344,891	0.005%
IS	5	0	0	130	0.000%	2,953	14,763	0.011%	5,905	29,525	0.023%	0	0	0.000%
LI	0													
NO	67	6,167	413,169	1,367	0.030%	4,022	269,458	0.020%	8,044	538,916	0.039%	16,087	1,077,833	0.079%
CH	24	7,705	184,915	3,266	0.006%	3,789	90,942	0.003%	7,579	181,884	0.006%	15,157	363,768	0.011%
<b>Total</b>	<b>1,534</b>		<b>7,322,492</b>	<b>133,861</b>	<b>0.005%</b>		<b>3,393,539</b>	<b>0.003%</b>		<b>6,787,078</b>	<b>0.005%</b>		<b>13,690,444</b>	<b>0.010%</b>

\* This is an incomplete picture due to missing data for CZ, DE, IE, EL, IT, AT, PT, SI and IS as reporting Member State and given that some Member states did not provide a breakdown by the Member State of origin (FR, ES and EE).

Source Own calculations based on the administrative questionnaire and ESSPROS

**Table 13 Total cost under sub-option 3a1**

	As Member State of last activity (in €) (n: 17,355)	Average duration			Three months		
		As Member State of origin (in €) (n: 986)	Total cost (in €)	% difference baseline scenario	As Member State of origin (in €) (n: 986)	Total cost (in €)	% difference baseline scenario
BE	13,606,403	214,347	13,820,751	-32.5%	86,898	13,693,301	-33.1%
BG	1,312,129	1,922	1,314,051	-0.4%	663	1,312,791	-0.5%
CZ							
DK	116,942	163,719	280,661	-11.1%	86,168	203,110	-35.7%
DE							
EE	40,568	2,950	43,518	-32.2%	1,079	41,647	-35.1%
IE							
EL							
ES	3,357,982	402,642	3,760,625	-42.2%	158,938	3,516,920	-45.9%
FR	27,884,715	1,048,059	28,932,774	-45.4%	449,168	28,333,883	-46.5%
HR	7,606	951	8,556	12.5%	303	7,909	4.0%
IT							
CY	3,890	11,669	15,559	300.0%	5,386	9,275	138.5%
LV	3,358	517	3,875	-21.1%	189	3,547	-27.7%
LT							
LU	514,545	350,329	864,874	64.6%	169,514	684,059	30.2%
HU	328,012	3,514	331,527	-1.5%	1,318	329,330	-2.1%
MT	9,625	4,125	13,750	25.0%	1,587	11,212	1.9%
NL	1,527,450	2,040,400	3,567,850	95.6%	971,619	2,499,069	37.0%
AT							
PL	305,108	4,510	309,618	-9.5%	1,828	306,936	-10.3%
PT							
RO	1,797	4,134	5,932	175.0%	1,676		-100%
SI						0	
SK	358,226	2,279	360,506	-18.2%	698	358,924	-18.5%
FI	661,516	59,064	720,579	-9.6%	38,520	700,035	-12.2%
SE	508,954	30,436	539,390	-30.2%	19,022	527,977	-31.7%
UK	18,753	379,380	398,132	820.0%	172,445	191,198	341.8%
IS							
LI							
NO							
CH	10,023,956	184,915	10,208,871	1.5%	90,942	10,114,898	0.6%
Total	60,591,536	4,909,862	65,501,398	-32.3%	2,257,960	62,849,496	-35.1%
Extrapolation (n: 6,741)		32,177,913			14,912,546		

\* This is an incomplete picture due to missing data for CZ, DE, IE, EL, IT, AT, PT, SI and IS as reporting Member State and given that some Member states did not provide a breakdown by the Member State of origin (FR, ES and EE).

Source Own calculations based on the administrative questionnaire

#### Sub-option 3b – A threshold of three months

In case a threshold of three months is applied, the remaining 14,049 cases are multiplied by the annual average expenditure per unemployed person in order to estimate the public unemployment spending.

Under this sub-option, the total estimated annual public unemployment spending for 20 reporting Member States amounts to € 45.8 million or to a decrease of expenditure by 53% compared to the baseline scenario (*Table 14*).

This sub-option 3b almost does not result in any further decrease of expenditure compared to sub-option 3a in Denmark (0 p.p.),<sup>20</sup> Cyprus (0.0 p.p.), Hungary (-0.5 p.p.), Switzerland (-2.5 p.p.), the United Kingdom (-3.3 p.p.), Bulgaria (-3.6 p.p.) and Croatia (-6.3 p.p.) (*Table 14*). Especially Finland (-37.0 p.p.), Sweden (-26.7 p.p.) and Poland (-25.0 p.p.) will experience a higher decrease of expenditure compared to sub-option 3a. This option will consequently lead to a further decrease of public

<sup>20</sup> p.p. = percentage points.

unemployment spending to 0.05% of total unemployment spending by the reporting Member States (*Table 14*).

# Aggregation of periods or salaries for unemployment benefits

**Table 14 Estimate of the budgetary annual impact under sub-option 3b**

	Number of unemployed persons who needed aggregated cases (A)	Annual average expenditure per unemployed persons (in €) (B)	Expenditure related to the aggregation of periods C=A*B	% change compared to the baseline scenario	Change in p.p. compared to sub-option 3a	Total UB spending in million euro (D)	% share C/D	Excluded aggregated cases		
								Less than 30 days	1 to 3 months	Total number
	3 months or more		3 months or more							
BE	1,040	9,319	9,692,233	-52.6%	-19.1 p.p.	5,577	0.17%	736	420	1,156
BG	3,946	320	1,264,077	-4.2%	-3.6 p.p.	181	0.70%	22	150	172
CZ										0
DK	20	5,847	116,942	-63.0%	0.0 p.p.	2,696	0.00%	34	0	34
DE										0
EE	79	369	29,135	-54.6%	-17.8 p.p.	37	0.08%	64	31	95
IE										0
EL										0
ES	742	2,632	1,952,683	-70.0%	-21.6 p.p.	24,146	0.01%	1,195	534	1,729
FR	3,107	6,352	19,735,264	-62.7%	-15.4 p.p.	31,121	0.06%	3,948	1,283	5,231
HR	15	475	7,130	-6.3%	-6.3 p.p.	180	0.00%	0	1	1
IT										0
CY	3	1,297	3,890	0.0%	0.0 p.p.	124	0.00%	0	0	0
LV	11	258	2,841	-42.1%	-10.5 p.p.	59	0.00%	6	2	8
LT	n.a.		n.a.							0
LU	40	10,948	437,911	-16.7%	-14.6 p.p.	275	0.16%	1	7	8
HU	1,114	293	326,255	-3.0%	-0.5 p.p.	208	0.16%	29	6	35
MT	6	1,375	8,250	-25.0%	-12.5 p.p.	23	0.04%	1	1	2
NL	107	11,399	1,219,680	-33.1%	-16.9 p.p.	10,183	0.01%	26	27	53
AT										0
PL	974	226	219,642	-35.8%	-25.0 p.p.	640	0.03%	164	379	543
PT										0
RO	8	180	1,438	-33.3%	-16.7 p.p.	183	0.00%	2	2	4
SI										
SK	725	380	275,413	-37.5%	-18.8 p.p.	176	0.16%	217	218	435
FI	62	5,906	366,196	-54.1%	-37.0 p.p.	3,189	0.01%	23	50	73
SE	179	1,691	302,667	-60.8%	-26.7 p.p.	1,704	0.02%	156	122	278
UK	12	1,443	17,310	-60.0%	-3.3 p.p.	6,646	0.00%	17	1	18
IS										0
LI	555		n.a.	n.a.	n.a.			96	75	171
NO	n.a.	6,167	n.a.							0
CH	1,269	7,705	9,777,402	-2.8%	-2.5 p.p.	3,266	0.30%	4	32	36
<b>Total</b>	14,014		45,756,359	-52.7%**	-15.3 p.p.	90,614	0.05%	6,741	3,341	10,082
<b>EU-13</b>	6,881		2,138,071			1,810	0.12%	505	790	1,295
<b>EU-15</b>	5,309		33,840,886			54,416	0.06%	6,136	2,444	8,580
<b>EFTA</b>	1,824		9,777,402			3,266	0.30%	100	107	207

\* No data available for CZ, DE, IE, EL, IT, AT, LT, PT NO and IS.

\*\* Compared to the reporting Member States under the baseline scenario (excl. LT and NO).

Source Own calculations based on the administrative questionnaire and ESSPROS

*Sub-option 3b1 – A threshold of three months AND the previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment*

Under this sub-option the previous Member State (i.e. Member State of origin) will be responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment. The Member State of last activity will still be responsible for paying the unemployment benefits for those workers who have completed more than three month of insurance, employment or self-employment.

As mentioned before, the missing data for a number of reporting Member States may lead to a distorted view of reality if the number of cases are reported by the previous Member State. Also, most of the aggregated cases apply to a period of insurance, employment or self-employment of more than three months. It implies that the previous Member State only for a limited number of cases will be responsible for paying the unemployment benefit if a threshold of three months is applied. Moreover, only 3,027 of the 13,113 aggregated cases which could be allocated to a previous Member state of residence have to be taken into account (see also Pacolet and De Wispelaere, 2015). Most of the cases with a period of insurance, employment of self-employment of less than three months were aggregated with an additional period completed in an EU-15 Member State and mainly completed in the United Kingdom (577 cases), the Netherlands (371 cases) and Spain (328 cases) (*Table 15*).

The calculation of the budgetary cost for the previous Member State could be based on the average duration of unemployment (*see also Table 10*), the entitlement to an unemployment benefit up to 3 or 6 months or for the maximum duration of the entitlement (*see also Figure 3*). Please notice that the average duration of unemployment not necessarily corresponds to the duration of the entitlement to an unemployment benefit (e.g. the period of unemployment could be longer than the entitlement to an unemployment benefit). The total annual budgetary cost for the Member States of origin varies from € 14.2 Million (entitlement up to 3 months) to € 26.2 Million (maximum duration of the entitlement) for the 3,027 reported cases depending on the calculation method used (*Table 15*). Again, The Netherlands and France will probably be confronted with the highest budgetary cost in absolute figures. This cost is still marginal if we confront the budgetary cost of paying an unemployment benefit for those unemployed persons who, in their Member State of last activity, have not completed three months of insurance, employment or self-employment with total unemployment spending (for instance equal to 0.01% of total public spending if the average duration of unemployment is taken into account).

**Table 15 Annual cost for the previous Member State responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment, average duration of unemployment, three months entitled to an unemployment benefit and maximum duration entitled to an unemployment benefit**

Previous MS	Cases less than three months (A)	Average duration of unemployment				Three months entitlement			Six months entitlement			Maximum duration of entitlement		
		Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	Total unemployment spending (in Million euro) (D)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)	Annual average expenditure (in €) (B)	Expenditure (in €) (C=A*B)	% share (C/D)
BE	41	9,319	382,098	5,577	0.0069%	3,778	154,904	0.0028%	7,556	309,809	0.0056%	15,113	619,618	0.0111%
BG	6	320	1,922	181	0.0011%	110	663	0.0004%	221	1,326	0.0007%	442	2,651	0.0015%
CZ	118	588	69,400	341	0.0204%	232	27,395	0.0080%	464	54,790	0.0161%	696	82,184	0.0241%
DK	55	5,847	321,590	2,696	0.0119%	3,077	169,258	0.0063%	6,155	338,516	0.0126%	12,310	677,032	0.0251%
DE	227	5,844	1,326,487	21,363	0.0062%	2,401	545,131	0.0026%	4,803	1,090,263	0.0051%	9,606	2,180,526	0.0102%
EE	31	369	11,433	37	0.0312%	135	4,183	0.0114%	270	8,365	0.0228%	540	16,731	0.0456%
IE	113	9,099	1,028,197	3,792	0.0271%	3,000	338,966	0.0089%	5,999	677,932	0.0179%	7,999	903,909	0.0238%
EL	39	803	31,315	1,279	0.0024%	268	10,438	0.0008%	535	20,877	0.0016%	1,071	41,753	0.0033%
ES	328	2,632	863,180	24,146	0.0036%	1,039	340,729	0.0014%	2,078	681,458	0.0028%	4,155	1,362,916	0.0056%
FR	233	6,352	1,479,986	31,121	0.0048%	2,722	634,280	0.0020%	5,444	1,268,559	0.0041%	10,889	2,537,119	0.0082%
HR	2	475	951	180	0.0005%	152	303	0.0002%	303	607	0.0003%	607	1,214	0.0007%
IT	209	2,533	529,378	9,929	0.0053%	905	189,064	0.0019%	1,809	378,127	0.0038%	3,618	756,254	0.0076%
CY	19	1,297	24,635	124	0.0198%	598	11,370	0.0091%	1,197	22,740	0.0183%	997	18,950	0.0152%
LV	6	258	1,550	59	0.0026%	95	567	0.0010%	189	1,134	0.0019%	284	1,701	0.0029%
LT	9	236	2,122	68	0.0031%	86	776	0.0011%	173	1,553	0.0023%	259	2,329	0.0034%
LU	47	10,948	514,545	275	0.1868%	5,297	248,973	0.0904%	10,595	497,947	0.1808%	42,378	1,991,788	0.7231%
HU	25	293	7,322	208	0.0035%	110	2,746	0.0013%	220	5,491	0.0026%	110	2,746	0.0013%
MT	6	1,375	8,250	23	0.0355%	529	3,173	0.0136%	1,058	6,346	0.0273%	881	5,289	0.0227%
NL	371	11,399	4,228,985	10,183	0.0415%	5,428	2,013,802	0.0198%	10,856	4,027,604	0.0396%	21,712	8,055,209	0.0791%
AT	198	5,468	1,082,688	2,297	0.0471%	3,038	601,493	0.0262%	6,076	1,202,986	0.0524%	12,151	2,405,972	0.1048%
PL	38	226	8,569	640	0.0013%	91	3,474	0.0005%	183	6,948	0.0011%	366	13,896	0.0022%
PT	40	2,004	80,172	2,482	0.0032%	742	29,693	0.0012%	1,485	59,387	0.0024%	7,423	296,933	0.0120%
RO	31	180	5,572	183	0.0030%	73	2,259	0.0012%	146	4,518	0.0025%	291	9,036	0.0049%
SI	3	1,458	4,373	199	0.0022%	554	1,661	0.0008%	1,107	3,321	0.0017%	2,214	6,642	0.0033%
SK	13	380	4,938	176	0.0028%	116	1,512	0.0009%	233	3,024	0.0017%	233	3,024	0.0017%
FI	17	5,906	100,409	3,189	0.0031%	3,852	65,484	0.0021%	7,704	130,968	0.0041%	15,408	261,936	0.0082%
SE	26	1,691	43,963	1,704	0.0026%	1,057	27,477	0.0016%	2,114	54,954	0.0032%	4,227	109,907	0.0065%
UK	577	1,443	832,327	6,646	0.0125%	656	378,331	0.0057%	1,311	756,661	0.0114%	1,311	756,661	0.0114%
IS	7	0	0	130	0.0000%	2,953	20,668	0.0159%	5,905	41,335	0.0318%	0	0	0.0000%
LI														
NO	153	6,167	943,506	1,367	0.0690%	4,022	615,330	0.0450%	8,044	1,230,660	0.0900%	16,087	2,461,320	0.1800%
CH	39	7,705	300,488	3,266	0.0092%	3,789	147,781	0.0045%	7,579	295,562	0.0090%	15,157	591,123	0.0181%
Total	3,027		14,240,349	133,861	0.0106%	0	6,591,883	0.0049%		13,183,767	0.0098%		26,176,369	0.0196%

\* This is an incomplete picture due to missing data for CZ, DE, IE, EL, IT, AT, PT, SI and IS as reporting Member State and given that some Member states did not provide a breakdown by the Member State of origin (FR, ES and EE).

Source Own calculations based on the administrative questionnaire and ESSPROS



The additional cost to be paid as previous Member State should be added to the budgetary cost Member States will experience as Member State of last activity (*Table 16*). Especially the United Kingdom and the Netherlands show in absolute figures a higher cost as Member State of origin than as Member State of last activity. The real budgetary impact is, however, underestimated given that under the baseline scenario 10,082 aggregated cases of a period of insurance, employment or self-employment of less than three month have been taken into consideration compared to only 3,027 under sub-option 3b1 (*Table 15*) and even only 1,911 cases when selecting only the 20 reporting Member States (*Table 16*). Nevertheless, these figures show already that this option will lead to a higher budgetary impact for some Member States compared to the current rules (for instance the United Kingdom). If we extrapolate the 1,911 cases to the total group of 10,082 cases an estimated amount of € 47.4 Million (assuming an average expenditure per unemployed person) or € 21,955,523 (assuming the entitlement for 3 months) will be paid by the Member States of origin (*Table 16*). It implies that the loss of an unemployment benefit in the Member State of last activity is compensated considerably by the Member State of origin (compared to an expenditure of € 51.0 Million under current rules for those 10,082 cases – see also *Table 10*).

**Table 16 Total cost under sub-option 3b1**

	As Member State of last activity (in €) (n: 14,014)	Average duration			Three months		
		As Member State of origin (in €) (n: 1,911 )	Total cost (in €)	% difference baseline scenario	As Member State of origin (in €) (n: 1,911 )	Total cost (in €)	% difference baseline scenario
<b>BE</b>	9,692,233	382,098	10,074,330	-50.8%	154,904	9,847,137	-51.9%
<b>BG</b>	1,264,077	1,922	1,265,999	-4.0%	663	1,264,740	-4.1%
<b>CZ</b>							
<b>DK</b>	116,942	321,590	438,532	38.9%	169,258	286,200	-9.4%
<b>DE</b>							
<b>EE</b>	29,135	11,433	40,568	-36.8%	4,183	33,318	-48.1%
<b>IE</b>							
<b>EL</b>							
<b>ES</b>	1,952,683	863,180	2,815,863	-56.7%	340,729	2,293,412	-64.7%
<b>FR</b>	19,735,264	1,479,986	21,215,250	-59.9%	634,280	20,369,544	-61.5%
<b>HR</b>	7,130	951	8,081	6.3%	303	7,434	-2.3%
<b>IT</b>							
<b>CY</b>	3,890	24,635	28,524	633.3%	11,370	15,260	292.3%
<b>LV</b>	2,841	1,550	4,391	-10.5%	567	3,408	-30.6%
<b>LT</b>							
<b>LU</b>	437,911	514,545	952,456	81.3%	248,973	686,884	30.7%
<b>HU</b>	326,255	7,322	333,577	-0.9%	2,746	329,001	-2.2%
<b>MT</b>	8,250	8,250	16,501	50.0%	3,173	11,423	3.8%
<b>NL</b>	1,219,680	4,228,985	5,448,665	198.8%	2,013,802	3,233,482	77.3%
<b>AT</b>							
<b>PL</b>	219,642	8,569	228,211	-33.3%	3,474	223,116	-34.8%
<b>PT</b>							
<b>RO</b>	1,438	5,572	7,010	225.0%	2,259	3,697	71.4%
<b>SI</b>							
<b>SK</b>	275,413	4,938	280,351	-36.4%	1,512	276,924	-37.2%
<b>FI</b>	366,196	100,409	466,605	-41.5%	65,484	431,680	-45.9%
<b>SE</b>	302,667	43,963	346,630	-55.1%	27,477	330,144	-57.3%
<b>UK</b>	17,310	832,327	849,637	1,863.3%	378,331	395,641	814.2%
<b>IS</b>							
<b>LI</b>							
<b>NO</b>							
<b>CH</b>	9,777,402	300,488	10,077,889	0.2%	147,781	9,925,183	-1.3%
<b>Total</b>	45,756,359	9,142,713	54,899,071	-43.3%	4,211,268	49,967,627	-48.4%
<b>Extrapolation (n: 10,082)</b>		47,430,196			21,955,523		

\* This is an incomplete picture due to missing data for CZ, DE, IE, EL, IT, AT, PT, SI and IS as reporting Member State and given that some Member states did not provide a breakdown by the Member State of origin (FR, ES and EE).

**Source** Own calculations based on the administrative questionnaire

#### Option 4 – A change of the calculation method: salary earned in the Member State of origin is also taken into account

For this option the calculation of the unemployment benefit will also be based on the salaries earned in the Member State of origin. The average wage earned during the qualifying period laid down in national legislation will be calculated. As mentioned above (see also *Figure 2*), many Member States apply a qualifying period of some 12 months.

### Box 2 – An example

An unemployed migrant worker worked for one month (option 4a) in the Member State of last activity and received a salary of € 2,000. The qualifying period in the Member State of last activity is 12 months. Therefore, a period of insurance, employment or self-employment of 11 months completed by the unemployed migrant worker in the Member State of origin has to be taken into account for the award of an unemployment benefit by the Member State of last activity. During this period of 11 months the unemployed migrant worker received a monthly salary of € 1,000. The unemployment benefit of the Member State of last activity is calculated as a certain percentage of the average salary of the previous 12 months (i.e. the qualifying period). The average salary will amount to € 1,083 ( $= (\text{€ } 2,000 \times 1 + \text{€ } 1,000 \times 11) / 12$ ). In accordance with the current rules, the calculation of the unemployment benefit would be based on the salary received in the Member State of last activity only, i.e. € 2,000.

If the unemployed migrant worker worked for three months (option 4b) in the Member State of last activity, the average salary would amount to € 1,250 ( $= (\text{€ } 2,000 \times 3 + \text{€ } 1,000 \times 9) / 12$ ).

*Tables 17* (threshold of one month) and *18* (threshold of three months) provide bilateral information on the impact of the average wage when also salaries earned in the Member State of origin are taken into account compared to the current situation. Figures are expressed as x times the average salary under the current rules. For example, consider the changes between Belgium and Bulgaria. The average wage in option 4a (*Table 17*) for an unemployed migrant worker who is employed only one month in Belgium as Member State of last activity (qualifying period = 12 months) and requiring an aggregation of a period of 11 months from Bulgaria as Member State of origin is equal to 0.2 times the average wage under the current rules. This in contrast to an unemployed worker employed in Bulgaria as Member State of last activity (qualifying period = 9 months) and requiring an aggregation of a period of eight months from Belgium as Member State of origin, where the average wage in option 4a will be equal to 8.4 times the average wage under the current rules. These cross-tables could be used to estimate the decrease or increase of the amount of the unemployment benefit. However, this should be corrected by the ceiling of earnings taken into account and the minimum and maximum unemployment benefits. For example, Bulgaria applies a maximum amount of the monthly contributory income of € 1,227. This implies that the salary earned in the Member of origin by unemployed migrant workers coming from high-wage Member States will be flattened to this ceiling. Also, unemployed migrant workers entitled to an unemployment benefit from Belgium will receive at least a daily amount of € 36.6 despite the fact that their average wage is decreased many times by taking into account also the salary earned in low-wage Member States of origin.

**Table 17** Average earnings also taking into account the salaries earned in the Member State of origin compared to the current situation, threshold of one month

	Member State of last activity																															
Reference period	12	9	12	12	12	12	9	5	12	4	9	12	6	9	18	6	12	12	6	12	12	12	12	9	24	6	6	6	3	12	12	12
Gross monthly earnings	2,579	278	639	2,948	2,496	655	1,851	1,159	1,453	2,055	684	1,677	n.a.	520	430	2,986	545	1,175	2,704	2,342	549	985	326	987	558	2,359	2,517	2,325	2,118	n.a.	3,730	3,978
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO	CH
BE	2,579	1.0	8.4	3.8	0.9	1.0	3.7	1.3	2.0	1.7	1.2	3.5	1.5	4.5	5.7	0.9	4.4	2.1	1.0	1.1	4.4	2.5	7.3	2.4	4.5	1.1	1.0	1.1	1.1		0.7	0.7
BG	278	0.2	1.0	0.5	0.2	0.2	0.5	0.2	0.4	0.3	0.4	0.5	0.2	0.6	0.7	0.2	0.6	0.3	0.3	0.2	0.5	0.3	0.9	0.4	0.5	0.3	0.3	0.3	0.4		0.2	0.1
CZ	639	0.3	2.2	1.0	0.3	0.3	1.0	0.4	0.6	0.5	0.5	0.9	0.4	1.2	1.5	0.3	1.2	0.6	0.4	0.3	1.2	0.7	1.9	0.7	1.1	0.4	0.4	0.4	0.5		0.2	0.2
DK	2,948	1.1	9.5	4.3	1.0	1.2	4.2	1.5	2.2	1.9	1.3	3.9	1.7	5.1	6.5	1.0	5.0	2.4	1.1	1.2	5.0	2.8	8.4	2.8	5.1	1.2	1.1	1.2	1.3		0.8	0.8
DE	2,496	1.0	8.1	3.7	0.9	1.0	3.6	1.3	1.9	1.7	1.2	3.4	1.4	4.4	5.5	0.9	4.3	2.0	0.9	1.1	4.3	2.4	7.1	2.4	4.3	1.0	1.0	1.1	1.1		0.7	0.7
EE	655	0.3	2.2	1.0	0.3	0.3	1.0	0.4	0.7	0.5	0.5	1.0	0.4	1.2	1.5	0.3	1.2	0.6	0.4	0.3	1.2	0.7	1.9	0.7	1.2	0.4	0.4	0.4	0.5		0.2	0.2
IE	1,851	0.7	6.0	2.7	0.7	0.8	2.7	1.0	1.5	1.3	0.9	2.5	1.1	3.3	4.1	0.7	3.2	1.5	0.7	0.8	3.2	1.8	5.3	1.8	3.2	0.8	0.8	0.8	0.9		0.5	0.5
EL	1,159	0.5	3.8	1.7	0.4	0.5	1.7	0.7	1.0	0.8	0.7	1.6	0.7	2.1	2.6	0.5	2.0	1.0	0.5	0.5	2.0	1.2	3.3	1.2	2.0	0.6	0.6	0.6	0.7		0.4	0.4
ES	1,453	0.6	4.8	2.2	0.5	0.6	2.1	0.8	1.2	1.0	0.8	2.0	0.9	2.6	3.2	0.6	2.5	1.2	0.6	0.7	2.5	1.4	4.2	1.4	2.5	0.7	0.6	0.7	0.8		0.4	0.4
FR	2,055	0.8	6.7	3.0	0.7	0.8	3.0	1.1	1.6	1.4	1.0	2.8	1.2	3.6	4.6	0.7	3.5	1.7	0.8	0.9	3.5	2.0	5.9	2.0	3.6	0.9	0.8	0.9	1.0		0.6	0.6
HR	684	0.3	2.3	1.1	0.3	0.3	1.0	0.4	0.7	0.5	0.5	1.0	0.5	1.3	1.6	0.4	1.2	0.6	0.4	0.4	1.2	0.7	2.0	0.7	1.2	0.4	0.4	0.4	0.5		0.3	0.2
IT	1,677	0.7	5.5	2.5	0.6	0.7	2.4	0.9	1.4	1.1	0.9	2.3	1.0	3.0	3.7	0.6	2.9	1.4	0.7	0.7	2.9	1.6	4.8	1.6	2.9	0.8	0.7	0.8	0.9		0.5	0.5
CY	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.3		0.1	0.1
LV	520	0.3	1.8	0.8	0.2	0.3	0.8	0.4	0.6	0.4	0.4	0.8	0.4	1.0	1.2	0.3	1.0	0.5	0.3	0.3	1.0	0.6	1.5	0.6	0.9	0.4	0.3	0.4	0.5		0.2	0.2
LT	430	0.2	1.5	0.7	0.2	0.2	0.7	0.3	0.5	0.4	0.4	0.7	0.3	0.8	1.0	0.3	0.8	0.4	0.3	0.3	0.8	0.5	1.3	0.5	0.8	0.3	0.3	0.3	0.5		0.2	0.2
LU	2,986	1.1	9.7	4.4	1.0	1.2	4.3	1.5	2.3	2.0	1.3	4.0	1.7	5.2	6.6	1.0	5.1	2.4	1.1	1.3	5.1	2.9	8.5	2.8	5.2	1.2	1.2	1.2	1.3		0.8	0.8
HU	545	0.3	1.9	0.9	0.3	0.3	0.8	0.4	0.6	0.4	0.4	0.8	0.4	1.0	1.3	0.3	1.0	0.5	0.3	0.3	1.0	0.6	1.6	0.6	1.0	0.4	0.3	0.4	0.5		0.2	0.2
MT	1,175	0.5	3.9	1.8	0.4	0.5	1.7	0.7	1.0	0.8	0.7	1.6	0.7	2.1	2.6	0.5	2.1	1.0	0.5	0.5	2.0	1.2	3.4	1.2	2.1	0.6	0.6	0.6	0.7		0.4	0.4
NL	2,704	1.0	8.8	4.0	0.9	1.1	3.9	1.4	2.1	1.8	1.2	3.6	1.6	4.7	6.0	0.9	4.6	2.2	1.0	1.1	4.6	2.6	7.7	2.5	4.7	1.1	1.1	1.1	1.2		0.7	0.7
AT	2,342	0.9	7.6	3.4	0.8	0.9	3.4	1.2	1.8	1.6	1.1	3.2	1.4	4.1	5.2	0.8	4.0	1.9	0.9	1.0	4.0	2.3	6.7	2.2	4.1	1.0	0.9	1.0	1.1		0.7	0.6
PL	549	0.3	1.9	0.9	0.3	0.3	0.9	0.4	0.6	0.4	0.5	0.8	0.4	1.0	1.3	0.3	1.0	0.5	0.3	0.3	1.0	0.6	1.6	0.6	1.0	0.4	0.3	0.4	0.5		0.2	0.2
PT	985	0.4	3.3	1.5	0.4	0.4	1.5	0.6	0.9	0.7	0.6	1.4	0.6	1.8	2.2	0.4	1.7	0.9	0.5	0.5	1.7	1.0	2.9	1.0	1.7	0.5	0.5	0.5	0.6		0.3	0.3
RO	326	0.2	1.2	0.6	0.2	0.2	0.5	0.3	0.4	0.3	0.4	0.5	0.3	0.7	0.8	0.3	0.6	0.3	0.3	0.2	0.6	0.4	1.0	0.4	0.6	0.3	0.3	0.3	0.4		0.2	0.2
SI	987	0.4	3.3	1.5	0.4	0.4	1.5	0.6	0.9	0.7	0.6	1.4	0.6	1.8	2.2	0.4	1.7	0.9	0.5	0.5	1.7	1.0	2.9	1.0	1.7	0.5	0.5	0.5	0.6		0.3	0.3
SK	558	0.3	1.9	0.9	0.3	0.3	0.9	0.4	0.6	0.4	0.5	0.8	0.4	1.1	1.3	0.3	1.0	0.5	0.3	0.3	1.0	0.6	1.7	0.6	1.0	0.4	0.4	0.4	0.5		0.2	0.2
FI	2,359	0.9	7.7	3.5	0.8	0.9	3.4	1.2	1.8	1.6	1.1	3.2	1.4	4.1	5.2	0.8	4.0	1.9	0.9	1.0	4.0	2.3	6.7	2.2	4.1	1.0	0.9	1.0	1.1		0.7	0.6
SE	2,517	1.0	8.2	3.7	0.9	1.0	3.6	1.3	1.9	1.7	1.2	3.4	1.5	4.4	5.6	0.9	4.3	2.0	0.9	1.1	4.3	2.4	7.2	2.4	4.4	1.1	1.0	1.1	1.1		0.7	0.7
UK	2,325	0.9	7.6	3.4	0.8	0.9	3.3	1.2	1.8	1.6	1.1	3.1	1.4	4.1	5.2	0.8	4.0	1.9	0.9	1.0	4.0	2.2	6.6	2.2	4.0	1.0	0.9	1.0	1.1		0.7	0.6
IS	2,118	0.8	6.9	3.1	0.7	0.9	3.0	1.1	1.7	1.4	1.0	2.9	1.2	3.7	4.7	0.8	3.6	1.7	0.8	0.9	3.6	2.1	6.0	2.0	3.7	0.9	0.9	0.9	1.0		0.6	0.6
LI	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.3		0.1	0.1
NO	3,730	1.4	12.1	5.4	1.2	1.5	5.3	1.9	2.8	2.4	1.6	5.0	2.1	6.5	8.2	1.2	6.4	3.0	1.3	1.5	6.3	3.6	10.6	3.5	6.4	1.5	1.4	1.5	1.5		1.0	0.9
CH	3,978	1.5	12.8	5.8	1.3	1.5	5.7	2.0	2.9	2.6	1.7	5.3	2.3	6.9	8.8	1.3	6.8	3.2	1.4	1.6	6.7	3.8	11.3	3.7	6.9	1.6	1.5	1.6	1.6		1.1	1.0

Source Own calculations based on Eurostat

# Aggregation of periods or salaries for unemployment benefits

**Table 18 Average earnings taking into account also the salaries earned in the Member State of origin compared to the current situation, threshold of three months**

Member State of last activity																																	
Reference period	12	9	12	12	12	12	9	5	12	4	9	12	6	9	18	6	12	12	6	12	12	12	12	9	24	6	6	6	3	12	12	12	
Gross monthly earnings	2,579	278	639	2,948	2,496	655	1,851	1,159	1,453	2,055	684	1,677	0	520	430	2,986	545	1,175	2,704	2,342	549	985	326	987	558	2,359	2,517	2,325	2,118	0	3,730	3,978	
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO	CH	
BE	2,579	1.0	6.5	3.3	0.9	1.0	3.2	1.3	1.5	1.6	1.1	2.8	1.4	3.6	5.2	0.9	3.8	1.9	1.0	1.1	3.8	2.2	6.2	2.1	4.2	1.0	1.0	1.1	1.0	0.8	0.7		
BG	278	0.3	1.0	0.6	0.3	0.3	0.6	0.4	0.7	0.4	0.8	0.6	0.4	0.7	0.7	0.5	0.6	0.4	0.6	0.3	0.6	0.5	0.9	0.5	0.6	0.6	0.6	1.0	0.3	0.3			
CZ	639	0.4	1.9	1.0	0.4	0.4	1.0	0.6	0.8	0.6	0.8	1.0	0.5	1.2	1.4	0.6	1.1	0.7	0.6	0.5	1.1	0.7	1.7	0.8	1.1	0.6	0.6	0.6	1.0	0.4	0.4		
DK	2,948	1.1	7.4	3.7	1.0	1.1	3.6	1.4	1.6	1.8	1.1	3.2	1.6	4.1	5.9	1.0	4.3	2.1	1.0	1.2	4.3	2.5	7.0	2.3	4.7	1.1	1.1	1.1	1.0	0.8	0.8		
DE	2,496	1.0	6.3	3.2	0.9	1.0	3.1	1.2	1.5	1.5	1.1	2.8	1.4	3.5	5.0	0.9	3.7	1.8	1.0	1.0	3.7	2.2	6.0	2.0	4.0	1.0	1.0	1.0	1.0	0.8	0.7		
EE	655	0.4	1.9	1.0	0.4	0.4	1.0	0.6	0.8	0.6	0.8	1.0	0.5	1.2	1.4	0.6	1.2	0.7	0.6	0.5	1.1	0.7	1.8	0.8	1.2	0.6	0.6	0.6	1.0	0.4	0.4		
IE	1,851	0.8	4.8	2.4	0.7	0.8	2.4	1.0	1.2	1.2	1.0	2.1	1.1	2.7	3.8	0.8	2.8	1.4	0.8	0.8	2.8	1.7	4.5	1.6	3.0	0.9	0.9	0.9	1.0	0.6	0.6		
EL	1,159	0.6	3.1	1.6	0.5	0.6	1.6	0.8	1.0	0.8	0.9	1.5	0.8	1.8	2.4	0.7	1.8	1.0	0.7	0.6	1.8	1.1	2.9	1.1	1.9	0.7	0.7	0.7	1.0	0.5	0.5		
ES	1,453	0.7	3.8	2.0	0.6	0.7	1.9	0.9	1.1	1.0	0.9	1.8	0.9	2.2	3.0	0.7	2.2	1.2	0.8	0.7	2.2	1.4	3.6	1.3	2.4	0.8	0.8	0.8	1.0	0.5	0.5		
FR	2,055	0.8	5.3	2.7	0.8	0.9	2.6	1.1	1.3	1.3	1.0	2.3	1.2	3.0	4.1	0.8	3.1	1.6	0.9	0.9	3.1	1.8	5.0	1.7	3.3	0.9	0.9	0.9	1.0	0.7	0.6		
HR	684	0.4	2.0	1.1	0.4	0.5	1.0	0.6	0.8	0.6	0.8	1.0	0.6	1.2	1.5	0.6	1.2	0.7	0.6	0.5	1.2	0.8	1.8	0.8	1.2	0.6	0.6	0.6	1.0	0.4	0.4		
IT	1,677	0.7	4.4	2.2	0.7	0.8	2.2	0.9	1.2	1.1	1.0	2.0	1.0	2.5	3.4	0.8	2.6	1.3	0.8	0.8	2.5	1.5	4.1	1.5	2.8	0.9	0.8	0.9	1.0	0.6	0.6		
CY	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.8	0.3	0.3	0.3	0.2	0.5	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.1	0.5	0.5	0.5	1.0	0.3	0.3		
LV	520	0.4	1.6	0.9	0.4	0.4	0.8	0.5	0.8	0.5	0.8	0.8	0.5	1.0	1.2	0.6	1.0	0.6	0.6	0.4	1.0	0.6	1.4	0.7	0.9	0.6	0.6	0.6	1.0	0.4	0.3		
LT	430	0.4	1.4	0.8	0.4	0.4	0.7	0.5	0.7	0.5	0.8	0.8	0.4	0.9	1.0	0.6	0.8	0.5	0.6	0.4	0.8	0.6	1.2	0.6	0.8	0.6	0.6	0.6	1.0	0.3	0.3		
LU	2,986	1.1	7.5	3.8	1.0	1.1	3.7	1.4	1.6	1.8	1.1	3.2	1.6	4.2	5.9	1.0	4.4	2.2	1.1	1.2	4.3	2.5	7.1	2.4	4.8	1.1	1.1	1.1	1.0	0.9	0.8		
HU	545	0.4	1.6	0.9	0.4	0.4	0.9	0.5	0.8	0.5	0.8	0.9	0.5	1.0	1.2	0.6	1.0	0.6	0.6	0.4	1.0	0.7	1.5	0.7	1.0	0.6	0.6	0.6	1.0	0.4	0.4		
MT	1,175	0.6	3.2	1.6	0.5	0.6	1.6	0.8	1.0	0.9	0.9	1.5	0.8	1.8	2.4	0.7	1.9	1.0	0.7	0.6	1.9	1.1	3.0	1.1	2.0	0.7	0.7	0.8	1.0	0.5	0.5		
NL	2,704	1.0	6.8	3.4	0.9	1.1	3.3	1.3	1.5	1.6	1.1	3.0	1.5	3.8	5.4	1.0	4.0	2.0	1.0	1.1	3.9	2.3	6.5	2.2	4.4	1.1	1.0	1.1	1.0	0.8	0.8		
AT	2,342	0.9	6.0	3.0	0.8	1.0	2.9	1.2	1.4	1.5	1.0	2.6	1.3	3.3	4.7	0.9	3.5	1.7	0.9	1.0	3.5	2.0	5.6	1.9	3.8	1.0	1.0	1.0	1.0	0.7	0.7		
PL	549	0.4	1.7	0.9	0.4	0.4	0.9	0.5	0.8	0.5	0.8	0.9	0.5	1.0	1.2	0.6	1.0	0.6	0.6	0.4	1.0	0.7	1.5	0.7	1.0	0.6	0.6	0.6	1.0	0.4	0.4		
PT	985	0.5	2.7	1.4	0.5	0.5	1.4	0.7	0.9	0.8	0.9	1.3	0.7	1.6	2.1	0.7	1.6	0.9	0.7	0.6	1.6	1.0	2.5	1.0	1.7	0.7	0.7	0.7	1.0	0.4	0.4		
RO	326	0.3	1.1	0.6	0.3	0.3	0.6	0.5	0.7	0.4	0.8	0.7	0.4	0.8	0.8	0.6	0.7	0.5	0.6	0.4	0.7	0.5	1.0	0.6	0.6	0.6	0.6	0.6	1.0	0.3	0.3		
SI	987	0.5	2.7	1.4	0.5	0.5	1.4	0.7	0.9	0.8	0.9	1.3	0.7	1.6	2.1	0.7	1.6	0.9	0.7	0.6	1.6	1.0	2.5	1.0	1.7	0.7	0.7	0.7	1.0	0.4	0.4		
SK	558	0.4	1.7	0.9	0.4	0.4	0.9	0.5	0.8	0.5	0.8	0.9	0.5	1.0	1.2	0.6	1.0	0.6	0.6	0.4	1.0	0.7	1.5	0.7	1.0	0.6	0.6	0.6	1.0	0.4	0.4		
FI	2,359	0.9	6.0	3.0	0.9	1.0	3.0	1.2	1.4	1.5	1.0	2.6	1.3	3.4	4.7	0.9	3.5	1.8	0.9	1.0	3.5	2.0	5.7	1.9	3.8	1.0	1.0	1.0	1.0	0.7	0.7		
SE	2,517	1.0	6.4	3.2	0.9	1.0	3.1	1.2	1.5	1.5	1.1	2.8	1.4	3.6	5.0	0.9	3.7	1.9	1.0	1.1	3.7	2.2	6.0	2.0	4.1	1.0	1.0	1.0	1.0	0.8	0.7		
UK	2,325	0.9	5.9	3.0	0.8	0.9	2.9	1.2	1.4	1.5	1.0	2.6	1.3	3.3	4.7	0.9	3.4	1.7	0.9	1.0	3.4	2.0	5.6	1.9	3.8	1.0	1.0	1.0	1.0	0.7	0.7		
IS	2,118	0.9	5.4	2.7	0.8	0.9	2.7	1.1	1.3	1.3	1.0	2.4	1.2	3.0	4.3	0.9	3.2	1.6	0.9	0.9	3.1	1.9	5.1	1.8	3.4	0.9	0.9	1.0	1.0	0.7	0.6		
LI	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.8	0.3	0.3	0.3	0.2	0.5	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.1	0.5	0.5	0.5	1.0	0.3	0.3		
NO	3,730	1.3	9.3	4.6	1.2	1.4	4.5	1.7	1.9	2.2	1.2	4.0	1.9	5.1	7.4	1.1	5.4	2.6	1.2	1.4	5.4	3.1	8.8	2.9	6.0	1.3	1.2	1.3	1.0	1.0	1.0		
CH	3,978	1.4	9.9	4.9	1.3	1.4	4.8	1.8	2.0	2.3	1.2	4.2	2.0	5.4	7.9	1.2	5.7	2.8	1.2	1.5	5.7	3.3	9.4	3.0	6.4	1.3	1.3	1.4	1.0	1.0	1.0		

Source Own calculations based on Eurostat

*Option 4a – A threshold of one month*

In order to calculate option 4a the following definition is applied:

**= (Cases of less than 30 days \* average spending per unemployed person \* correction coefficient) + (cases more than 30 days \* average spending per unemployed person).**

The correction coefficient is defined in *Table 17* (assuming a period of employment of one month in the Member State of last activity and 11 months in the Member State of origin). The unemployment expenditure related to the cases of a period of more than one month is already reported in *Table 11* under sub-option 3a.

For six of the reporting Member States the budgetary impact could not be estimated: Lithuania and Norway could not provide a breakdown by period of insurance, employment or self-employment; France, Spain and Estonia could not provide a breakdown by Member State of origin and for Liechtenstein the average spending per unemployed person is not known.

The estimated budgetary impact does not take into account the ceiling of earnings taken as a reference defined by some Member States, or the lowest and highest levels of the unemployment benefits. Therefore, these estimates should be considered as a maximum impact, given that the real impact will be flattened for some Member States. As already mentioned, also some Member States do not take previous earnings as a reference for the calculation of the unemployment benefit and as a result this option will not affect these Member States (Ireland, Malta, Poland and the United Kingdom).

Under this sub-option 0.10% of total yearly unemployment spending by the reporting Member States will be related to the aggregation of periods for unemployment (*Table 19*).

If the calculation of the unemployment benefit will also be based on the salaries earned in the Member State of last activity for those unemployed recent migrant workers who fulfilled a period of insurance, employment or self-employment of less than one month in their Member State of last activity, in particular 'low-wage' competent Member States (compared to the Member States of origin) will be confronted with an additional budgetary cost (e.g. BG (+2.7%), LV (+94.7%), HU (+1.5%), SK (+43.7%) and SE (+3.2%)) (*Tables 15 and 16*). This of course in contrast to 'high-wage' competent Member States (e.g. BE (-6.8%), DK (-24.7%); NL (-1.4%), FI (-4.3%) and CH (-0.2%)).

**Table 19 Estimate of the budgetary annual impact under sub-option 4a**

MS	Less than 30 days	More than one month	Expenditure related to the aggregation of periods (in €)	% change compared to the baseline scenario	Total unemployment spending (in million €)	% share
BE	5,457,818	13,606,403	19,064,221	-6.8%	5,577	0.34%
BG	43,216	1,312,129	1,355,345	2.7%	181	0.75%
CZ		0				
DK	120,852	116,942	237,794	-24.7%	2,696	0.01%
DE						
EE						
IE						
EL						
ES						
FR						
HR	0	7,606	7,606	0.0%	180	0.00%
IT						
CY	0	3,890	3,890	0.0%	124	0.00%
LV	6,196	3,358	9,554	94.7%	59	0.02%
LT				n.a.		
LU	8,103	514,545	522,648	-0.5%	275	0.19%
HU	13,621	328,012	341,634	1.5%	208	0.16%
MT	(2,100)	(9,625)	(11,725)	6.6%	23	0.05%
NL	270,987	1,527,450	1,798,437	-1.4%	10,183	0.02%
AT						
PL	(152,136)	(305,108)	(457,244)	33.7%	640	0.07%
PT						
RO	30	1,797	1,827	-15.3%	183	0.00%
SI						
SK	275,080	358,226	633,306	43.7%	176	0.36%
FI	101,483	661,516	762,999	-4.3%	3,189	0.02%
SE	288,706	508,954	797,660	3.2%	1,704	0.05%
UK	(19,467)	(18,753)	(38,219)	-11.7%	6,646	0.00%
IS						
LI				n.a.		
NO				n.a.		
CH	12,454	10,023,956	10,036,409	-0.2%	3,266	0.31%
<b>Total</b>	<b>6,772,249</b>	<b>29,308,270</b>	<b>36,080,519</b>	<b>-3.2*</b>	<b>35,310</b>	<b>0.10%</b>

\* Only selecting Member States for which figures are available under sub-option 4a.

\*\* ( ) = Member States which do not take previous earnings as a reference for the calculation of the Unemployment Benefit.

Source Own calculations based on the administrative questionnaire and ESSPROS

**Table 20 Estimate of public spending for cases less than 30 days under the baseline scenario and under sub-option 4a**

MS	Number of cases	Baseline scenario (in €)	Sub-option 4a (in €)	% change
BE	736	6,859,118	5,457,818	-20.4%
BG	22	7,048	43,216	513.9%
DK	34	198,801	120,852	-39.2%
HR	0	0	0	
CY	0	0	0	
LV	6	1,550	6,196	299.8%
LU	1	10,948	8,103	-26.0%
HU	29	8,493	13,621	60.4%
MT	1	1,375	2,100	(52.7%)
NL	26	296,371	270,987	-8.6%
PL	164	36,983	152,136	(311.4%)
RO	2	359	30	-91.7%
SK	217	82,434	275,080	233.7%
FI	23	135,847	101,483	-25.3%
SE	156	263,777	288,706	9.5%
UK	17	24,523	19,467	(-20.6%)
CH	4	30,819	12,454	-59.6%

\* ( ) = Member States which do not take previous earnings as a reference for the calculation of the Unemployment Benefit.

Source Own calculations based on the administrative questionnaire and ESSPROS

*Option 4b – A threshold of three months*

In order to calculate option 4b the following definition is applied:

**= (Cases of less than 30 days \* average spending per unemployed person \* correction coefficient) + (cases more than one month but less than three months \* average spending per unemployed person \* correction coefficient) + (cases more than three months \* average spending per unemployed person).**

The correction coefficient for the cases of less than 30 days is defined in *Table 17* (assuming a period of employment of one month in the Member State of last activity and 11 months in the Member State of origin) and for the cases of more than one month but less than three months in *Table 84* (assuming a period of employment of three months in the Member State of last activity and nine months in the Member State of origin). The unemployment expenditure related to the cases of a period of more than three months is already reported in *Table 15* under sub-option 3b.

For six reporting Member States the budgetary impact could not be estimated: Lithuania and Norway could not provide a breakdown by period of insurance, employment or self-employment; France, Spain and Estonia could not provide a breakdown by Member State of origin and for Liechtenstein the average spending per unemployed person is not known.

The estimated budgetary impact does not take into account the ceiling of earnings taken as a reference defined by some Member States, or the lowest and highest levels of the unemployment benefits. Therefore, these estimates should be considered as a maximum impact, given that the real impact will be flattened for some Member States. As already mentioned, also some Member States do not take previous earnings as a reference for the calculation of the unemployment benefit and as a result this option will not affect these Member States (IE, MT, PL and UK).

Under this sub-option, 0.10% of total unemployment spending by the reporting Member States will be related to the aggregation of periods for unemployment (*Table 21*). Also, a similar view on the budgetary impact of 'low-wage' and 'high-wage' Member States as described under sub-option 4a is obtained.



**Table 21 Estimate of the budgetary annual impact under sub-option 4b**

MS	Less than 30 days	More than 1 month but less than 3 months	More than 3 months	Expenditure related to the aggregation of periods (in €)	% change compared to the baseline scenario	Total unemployment spending (in million €)	% share
BE	5,457,818	3,182,447	9,692,233	18,332,498	-10.4%	5,577	0.33%
BG	43,216	237,859	1,264,077	1,545,152	17.1%	181	0.85%
CZ							
DK	120,852	0	116,942	237,794	-24.7%	2,696	0.01%
DE							
EE							
IE							
EL							
ES							
FR							
HR	0	1,315	7,130	8,446	11.0%	180	0.00%
IT							
CY	0	0	3,890	3,890	0.0%	124	0.00%
LV	6,196	1,680	2,841	10,717	118.4%	59	0.02%
LT					n.a.		
LU	8,103	62,786	437,911	508,800	-3.2%	275	0.18%
HU	13,621	2,424	326,255	342,300	1.7%	208	0.16%
MT	(2,100)	(721)	(8,250)	(11,072)	0.6%	23	0.05%
NL	270,987	292,771	1,219,680	1,783,439	-2.2%	10,183	0.02%
AT							
PL	(152,136)	(293,485)	(219,642)	(665,263)	94.5%	640	0.10%
PT							
RO	30	575	1,438	2,043	-5.3%	183	0.00%
SI							
SK	275,080	248,899	275,413	799,392	81.4%	176	0.45%
FI	101,483	222,066	366,196	689,745	-13.5%	3,189	0.02%
SE	288,706	238,894	302,667	830,267	7.4%	1,704	0.05%
UK	(19,467)	(1,955)	(17,310)	(38,732)	-10.5%	6,646	0.00%
IS							
LI					n.a.		
NO					n.a.		
CH	12,454	134,820	9,777,402	9,924,675	-1.3%	3,266	0.30%
<b>Total</b>	<b>6,772,249</b>	<b>4,922,698</b>	<b>24,039,277</b>	<b>35,734,224</b>	<b>-4.1*</b>	<b>35,310</b>	<b>0.10%</b>

\* Only selecting Member States for which figures are available under sub-option 4b.

\*\* ( ) = Member States which do not take previous earnings as a reference for the calculation of the Unemployment Benefit.

Source Own calculations based on the administrative questionnaire and ESSPROS

**Table 22 Estimate of public spending for cases less than three months under the baseline scenario and under sub-option 4b**

MS	Number of cases	Baseline scenario (in €)	Sub-option 4b (in €)	% change
BE	1,156	10,773,289	8,640,265	-19.8%
BG	172	55,099	281,123	410.2%
DK	34	198,801	120,852	-39.2%
HR	1	475	1,315	176.7%
CY	0	0	0	
LV	8	2,066	7,876	281.1%
LU	8	87,582	70,889	-19.1%
HU	35	10,250	16,045	56.5%
MT	2	2,750	2,821	(2.6%)
NL	53	604,141	563,759	-6.7%
PL	543	122,449	445,621	(263.9%)
RO	4	719	605	-15.8%
SK	435	165,248	523,979	217.1%
FI	73	431,166	323,549	-25.0%
SE	278	470,064	527,599	12.2%
UK	18	25,965	21,422	(-17.5%)
CH	36	277,373	147,274	-46.9%

\* ( ) = Member States which do not take previous earnings as a reference for the calculation of the Unemployment Benefit.

Source Own calculations based on the administrative questionnaire and ESSPROS

## Summary

All Member States will experience the lowest budgetary impact on their public unemployment spending if option 3b – application of a threshold of three months – is applied (*Tables 23 and 24*). The budgetary impact differs for each of the Member States and depends on the percentage of aggregated cases applicable to a period of insurance, employment or self-employment below three months compared to the total number of aggregated cases. For instance, Cyprus and Hungary will experience almost no decrease of public unemployment spending under option 3b. These estimates only include the budgetary impact on public unemployment spending. However, also public spending on social assistance applicable to recent unemployed migrant workers who fall below the threshold could be taken into account. This will also limit the financial 'gain' when applying a threshold of one or three months. The impact of option 4 – the calculation of the unemployment benefit will also be based on the salaries in the Member State of origin if a period of insurance, employment or self-employment of less than one month (sub-option 4a) or three months (sub-option 4b) has been fulfilled in the Member State of last activity – depends strongly on the breakdown by Member State of origin. If average earnings in the Member State of origin are higher than the average earnings in the Member State of last activity, competent Member States will experience a higher budgetary cost compared to the baseline scenario. However, the real impact will be flattened for some competent Member States given that they have defined a ceiling of earnings taken as a reference and/or a minimum and/or a maximum level of the unemployment benefit.

**Table 23 A comparison of options between Member States, % change compared to the baseline scenario**

MS	Baseline	Option 3a		Option 3b		Option 4a		Option 4b	
	Amount (in €)	Amount (in €)	% change	Amount (in €)	% change	Amount (in €)	% change	Amount (in €)	% change
BE	20,465,522	13,606,403	-33.5%	9,692,233	-52.6%	19,064,221	-6.8%	18,332,498	-10.4%
BG	1,319,176	1,312,129	-0.5%	1,264,077	-4.2%	1,355,345	2.7%	1,545,152	17.1%
CZ									
DK	315,743	116,942	-63.0%	116,942	-63.0%	237,794	-24.7%	237,794	-24.7%
DE									
EE	64,171	40,568	-36.8%	29,135	-54.6%	n.a.	n.a.	n.a.	n.a.
IE									
EL									
ES	6,502,801	3,357,982	-48.4%	1,952,683	-70.0%	n.a.	n.a.	n.a.	n.a.
FR	52,961,903	27,884,715	-47.3%	19,735,264	-62.7%	n.a.	n.a.	n.a.	n.a.
HR	7,606	7,606	0.0%	7,130	-6.3%	7,606	0.0%	8,446	11.0%
IT									
CY	3,890	3,890	0.0%	3,890	0.0%	3,890	0.0%	3,890	0.0%
LV	4,908	3,358	-31.6%	2,841	-42.1%	9,554	94.7%	10,717	118.4%
LT	53,055	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LU	525,493	514,545	-2.1%	437,911	-16.7%	522,648	-0.5%	508,800	-3.2%
HU	336,506	328,012	-2.5%	326,255	-3.0%	341,634	1.5%	342,300	1.7%
MT	11,000	9,625	-12.5%	8,250	-25.0%	11,725	6.6%	11,072	0.6%
NL	1,823,821	1,527,450	-16.3%	1,219,680	-33.1%	1,798,437	-1.4%	1,783,439	-2.2%
AT									
PL	342,091	305,108	-10.8%	219,642	-35.8%	457,244	33.7%	665,263	94.5%
PT									
RO	2,157	1,797	-16.7%	1,438	-33.3%	1,827	-15.3%	2,043	-5.3%
SI									
SK	440,660	358,226	-18.7%	275,413	-37.5%	633,306	43.7%	799,392	81.4%
FI	797,363	661,516	-17.0%	366,196	-54.1%	762,999	-4.3%	689,745	-13.5%
SE	772,731	508,954	-34.1%	302,667	-60.8%	797,660	3.2%	830,267	7.4%
UK	43,275	18,753	-56.7%	17,310	-60.0%	38,219	-11.7%	38,732	-10.5%
IS									
LI	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NO	3,083,353	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CH	10,054,775	10,023,956	-0.3%	9,777,402	-2.8%	10,048,455	-0.2%	9,924,675	-1.3%
<b>Total</b>			-37.4%		-52.7%		-3.2%		-4.1%

\* No data available for CZ, DE, IE, EL, IT, AT, LT, PT, SI, NO and IS.

Source Own calculations based on the administrative questionnaire and ESSPROS

**Table 24 A comparison of options between Member States, estimated lowest and highest budgetary impact**

MS	Lowest budgetary impact					Highest budgetary impact				
	Baseline	Option 3a	Option 3b	Option 4a	Option 4b	Baseline	Option 3a	Option 3b	Option 4a	Option 4b
BE			X			X				
BG			X							X
CZ										
DK		X	X						X	X
DE										
EE			X	n.a.	n.a.	X			n.a.	n.a.
IE										
EL										
ES			X	n.a.	n.a.	X			n.a.	n.a.
FR			X	n.a.	n.a.	X			n.a.	n.a.
HR			X							X
IT										
CY	X	X	X	X	X	X	X	X	X	X
LV			X							X
LT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LU			X			X				
HU			X							X
MT			X					X		
NL			X			X				
AT										
PL			X							X
PT										
RO			X			X				
SI										
SK			X							X
FI			X			X				
SE			X							X
UK			X			X				
IS										
LI	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NO										
CH			X			X				

\* No data available for CZ, DE, IE, EL, IT, AT, PT, SI and IS.

Source Own calculations based on the administrative questionnaire and ESSPROS

## CONCLUSIONS

The unemployment chapter of Regulation (EC) No 883/2004 provides for specific coordination rules for the aggregation of periods of insurance, employment or self-employment in the case of unemployment. Aggregation will be applied to those unemployed recent migrant workers who have completed their most recent periods of insurance, employment or self-employment in the Member State where the benefit is claimed. In some cases the period of insurance, employment or self-employment is insufficient to be entitled to an unemployment benefit. In that case additional periods of insurance, employment or self-employment completed by the person in a Member State other than the competent State are required.

In the framework of an impact assessment of a revision of Regulation (EC) Nos 883/2004 and 987/2009 by the end of 2015 the Commission requires a preparatory study on the economic impact of an amendment of the aggregation rules for unemployment. The Commission proposed several alternative options, to be compared with a first option representing the current situation, i.e. the 'status quo'.

- **Option 1** – Status quo: "maintaining the wording of Article 61";
- **Option 2** – The formalisation of the "one-day rule";
- **Option 3** – The introduction of a minimum period for aggregating periods of insurance, employment or self-employment;
  - **Sub-option 3a: one month** of insurance, employment or self-employment needs to be completed before aggregation can be applied.
    - **Sub-option 3a1:** *Previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one month of insurance, employment or self-employment.*
  - **Sub-option 3b: three months** of insurance, employment or self-employment needs to be completed before aggregation can be applied.
    - **Sub-option 3b1:** *Previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed three months of insurance, employment or self-employment.*
- **Option 4** – A change of the calculation method of the unemployment benefit.
  - **Sub-option 4a:** the salary earned in the previous Member State is also taken into account for the calculation of the unemployment benefit by the competent Member State, if less than **one month** of insurance, employment or self-employment is completed.
  - **Sub-option 4b:** the salary earned in the previous Member State is also taken into account for the calculation of the unemployment benefit by the competent Member State, if less than **three months** of insurance, employment or self-employment is completed.

Different components (the number of new EU-28/EFTA movers; the number of unemployed new EU-28/EFTA movers; the period of insurance, employment or self-employment completed in the last Member State of activity; the qualifying period; the amount of the unemployment benefit and the duration of unemployment) will determine the budgetary cost of new EU-28/EFTA movers who became unemployed after a short period of insurance, employment or self-employment.

In 2012, some 1.8 million EU-28/EFTA citizens of working age moved to another EU Member State/EFTA country and some one in ten of these new EU-28/EFTA movers were unemployed. This group might need to prove periods of insurance, employment or self-employment completed in a Member State other than the competent Member

State in order to be entitled to an unemployment benefit. To which extent aggregation is required (expressed by the number of PDs U1 or SEDs U002) will also depend on the qualifying period required under the legislation of the competent Member State. Most Member States apply a qualifying period of some 12 months. However, it should be noted that there are also large differences in the time in which this period must be completed. It will make the accomplishment of the acquired period more severe or less severe.

In almost all Member States the earnings preceding unemployment are taken into account as a reference basis for the calculation of the unemployment benefit. Nonetheless, the applied calculation methods vary from taking into account the last salary earned to the average earnings of several months. In case of aggregation the calculation method (as defined in Article 62 of Regulation (EC) No 883/2004) provides that only the salary or professional income received by the person concerned in respect of the last activity in the competent Member State is taken into account. However, option 4 is revising this by also taking into account the salary earned in the previous Member State of origin if a period of insurance, employment or self-employment of less than one month (sub-option 4a) or three months (sub-option 4b) has been fulfilled in the Member State of last activity .

The budgetary impact of the aggregation of periods for unemployment on total unemployment spending is very limited. Approximately 0.11% of total unemployment spending by the reporting Member States could be related to the aggregation of periods for unemployment.

All Member States will experience the lowest budgetary impact on their public unemployment spending if option 3b – application of a threshold of three months – is applied. The budgetary impact differs for each of the Member States and depends on the percentage of aggregated cases applicable to a period of insurance, employment or self-employment below three months compared to the total number of aggregated cases. These estimates only include the budgetary impact on public unemployment spending. However, also public spending on social assistance applicable to unemployed recent migrant workers who fall below the threshold could be taken into account. This will also limit the financial ‘gain’ when applying a threshold of one or three months.

In case the previous Member State is responsible for paying the unemployment benefits for those workers who, in the Member State of last activity, have not completed one or three months of insurance, employment or self-employment this additional cost should be added to the budgetary cost Member States will experience as Member State of last activity. However, most of the aggregated cases apply to a period of insurance, employment or self-employment of more than three months and implies that the previous Member State only for a limited number of cases will be responsible for paying the unemployment benefit. Nevertheless, figures show already that this will lead to a higher budgetary impact for some Member States compared to the current rules.

The impact of option 4 – the calculation of the unemployment benefit will also be based on the salaries in the Member State of origin if a period of insurance, employment or self-employment of less than one month (sub-option 4a) or three months (sub-option 4b) has been fulfilled in the Member State of last activity – depends strongly on the breakdown by Member State of origin. If average earnings in the Member State of origin are higher than the average earnings in the Member State of last activity, competent Member States will experience a higher budgetary cost compared to the baseline scenario. However, the real impact will be flattened for some

competent Member States given that they have defined a ceiling of earnings taken as a reference and/or a minimum and/or a maximum level of the unemployment benefit.

## REFERENCES

- Barslund, M. and Busse, M. (2014), *Making the Most of EU Labour Mobility. Report of a CEPS Task Force in cooperation with the Bertelsmann Stiftung*, Centre for European Policy Studies, Brussels, 45 p.
- Bundesministerium des Innern (BMI) & Bundesministerium für Arbeit und Soziales (BMAS)(2014), *Rechtsfragen und Herausforderungen bei der Inanspruchnahme der sozialen Sicherungssysteme durch Angehörige der EU-Mitgliedstaaten*, Germany, 139.
- Canetta, E., Fries-Tersch, E. and Mabilla, V. (2014), *Annual report on statistics on intra-EU movers, Network Statistics FMSSFE*, European Commission, 76 p.
- Doherty, R., Vandresse, B., Bulté, S., Bardaji Horno, M., Ulrich, M., Pacolet, J. and De Wispelaere, F. (2013), *Study for an impact assessment for revision of Regulations (EC) Nos 883/2004 and 987/2009*, Deloitte – HIVA KU Leuven, 295 p.
- Darvas, Z. and Wolff, G.B. (2014), 'Europe's social problem and its implications for economic growth', *Breugelpolicybrief*, Issue 2014/03, Brussels, 8 p.
- Dullien, S. (2014), *A European Unemployment Benefits Scheme. How to Provide for More Stability in the Euro Zone*, Bertelsmann Stiftung, 143 p.
- Esser, I., Ferrarini, T., Nelson, K., Palme, J. & Sjöberg, O. (2013), *Unemployment Benefits in EU Member States*, European Commission – DG EMPL, 25 p.
- European Commission (2015), *Employment and Social Development in Europe 2014*, DG EMPL, 33 p.
- European Commission (2014a), 'Recent trends in the geographical mobility of workers in the EU – EU Employment and Social Situation – Quarterly Review – Supplement June 2014', DG EMPL, 36 p.
- European Commission (2014b), *Migrant access to social security and healthcare: policies and practice. European Migration Network Study 2014*, DG Home Affairs, 111 p.
- European Commission (2011), *Mobility in Europe 2011 – Section III: Migration and cross-border commuting*, p. 66-108.
- Pacolet, J. and De Wispelaere, F. (2015), *Aggregation of periods for unemployment*, Network Statistics FMSSFE, European Commission, May 2015, 17 p.
- Pacolet, J. and De Wispelaere, F. (2014), *Posting of workers: Report on A1 portable documents issued in 2012 and 2013*, Network Statistics FMSSFE, European Commission, 40 p.
- Tænketanken Europa (2014), 'Sociale Ydelser og fri bevægelighed - fire bud på vejen frem. Notat', Tænketanken Europa, Denmark. See also <http://english.thinkeuropa.dk/society/social-security-and-freedom-movement-four-proposals-road-ahead>

## HOW TO OBTAIN EU PUBLICATIONS

### Free publications:

- one copy:  
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:  
from the European Union's representations ([http://ec.europa.eu/represent\\_en.htm](http://ec.europa.eu/represent_en.htm));  
from the delegations in non-EU countries ([http://eeas.europa.eu/delegations/index\\_en.htm](http://eeas.europa.eu/delegations/index_en.htm));  
by contacting the Europe Direct service ([http://europa.eu/europedirect/index\\_en.htm](http://europa.eu/europedirect/index_en.htm))  
or calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (\*).

(\*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

### Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

### Priced subscriptions:

- via one of the sales agents of the Publications Office of the European Union ([http://publications.europa.eu/others/agents/index\\_en.htm](http://publications.europa.eu/others/agents/index_en.htm)).



